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**Working Paper**

## Managing capital flows in Estonia and Latvia

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## Discussion Papers

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2001 • No. 17

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**Pekka Sutela**

Managing capital flows  
in Estonia and Latvia

Bank of Finland  
Institute for Economies in Transition BOFIT

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All opinions expressed are those of the authors and do not necessarily reflect the views of the Bank of Finland.

Pekka Sutela\*

## Managing capital flows in Estonia and Latvia

Paper for the International Center for Economic Growth and Ford Foundation project on Managing Capital Flows in the Transition Economies of Central and Eastern Europe.

### Abstract

The three Baltic countries have been able to combine, Estonia since 1992 and Latvia and Lithuania since 1994, (1) a fixed exchange rate, (2) liberalisation of the capital account before having a well-functioning and fully supervised financial system, and (3) very large current account deficits. At the same time they have gone through deep structural and institutional change, which has been even faster than in several other transition economies. How have they been able to manage such a combination of characteristics that would usually be regarded inconsistent?

The answer is not in clever management or control of financial markets combined with sound fundamentals. Rather, the Baltic countries have lacked several such markets that might be sources of instability. There are hardly any inter-bank markets. Public debt is absent or relatively very small. After the boomlet of 1997, the Baltic stock exchanges have generally hibernated. Banking crises have been recurrent. Not only are these economies extremely small, their degree of monetisation is very low. There are very few assets and markets for speculative capital flows.

Partially, this reflects sound fundamentals, but mostly it is an unintended consequence of policy decisions. One cannot expect the experience to be easily repeated in other countries.

**Key words:** The Baltic countries, capital flows and controls, financial crises, currency boards.

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## Pekka Sutela

### Pääomanliikkeiden hallinta Virossa ja Latviassa

Baltian maat ovat kysyneet – Viro vuodesta 1992, Latvia ja Liettua vuodesta 1994 – yhdistämään 1) kiinteät valuuttakurssit, 2) pääomanliikkeiden vapauttamisen ennen kuin hyvin toimivat ja kunnolla valvotut rahoitusmarkkinat ovat kehittyneet ja 3) hyvin suuret maksutasevajeet. Samaan aikaan nämä maat ovat käyneet lävitse hyvin syviä rakenteellisia ja institutionaalisia muutoksia, jotka ovat olleet jopa nopeampia kuin useissa muissa siirtymätalouksissa. Kuinka nämä maat ovat pystyneet ylläpitämään sellaisen talouden piirteiden yhdistelmän, jota yleisesti pidetään yhteensopimattomana?

Vastaus ei ole, että talouden terveet perusominaisuudet on yhdistetty viisaaseen rahoitusmarkkinoiden hallintaan ja valvontaan. Pikemminkin Baltian mailta on puuttunut useita sellaisia markkinoita, jotka voisivat olla epävakauden lähteitä. Pankkien välisiä markkinoita ei juuri ole. Julkista velkaa ei joko ole tai se on vähäinen. Vuoden 1997 pikkubuumin jälkeen osakemarkkinat ovat olleet horroksessa. Pankkikriisit ovat toistuneet. Sen lisäksi, että nämä taloudet ovat hyvin pieniä, niiden monetisoitumisen aste on hyvin alhainen. Spekulaatiivisille pääomavirroille on hyvin vähän varallisuuskohhteita ja markkinoita.

Tämä heijastaa osin talouden terveitä perusominaisuuksia, mutta ennen muuta kyse on politiikkapäätösten tahattomista seurauksista. Ei voi odottaa, että tämä kokemus voitaisiin helposti toistaa muissa maissa.

**Asiasanat:** Baltian maat, pääomavirrat ja niiden kontrolli, finanssikriisit, valuuttakatejärjestelmät.

## Executive Summary

Discussing the experience of Central and Eastern European countries in managing capital flows, the Baltic experience – Estonia, Latvia and Lithuania – offers an interesting case study for several reasons. Though separate countries each with its own identity, historical background, inherited endowments and varieties of recent economic and political history, these three countries are exceptionally similar among transition economies. They are of somewhat similar size, making them obvious small open economies. They became newly independent at the same time, as the USSR collapsed, and all – with important variation – opted for radical reforms and a fast integration with European institutions. All aim to join the European Union during the next few years, and they are among the more successful of the accession countries.

These countries have important similarities in other respects as well. They have all opted – Estonia since June 1992, Latvia and Lithuania since early 1994 – for fixed exchange rates. They also all decided to liberalise their capital accounts, even before they had a fully developed and supervised financial system. Finally, they have all been running very large current account deficits. This combination is usually seen as inherently unstable and a source of destabilising capital flows. How have the Baltic countries been able to maintain this combination for several years? That is the basic question answered in this paper.

At the same time these three countries offer a possibility for some comparative analysis as well, as they opted for different solutions in such matters as privatisation, monetary reform and exchange rate regime. First Estonia and later Lithuania chose the currency board regime, though with different anchors, while Latvia has consistently maintained a peg. Observers as well as Latvian authorities point out that in fact Latvia as well has acted like a currency board. Banking sector development also differs in significant ways. In spite of that, the end result is similar in all Baltic countries: the banking industry is overwhelmingly owned by Western banks. This is obviously important for financial stability and capital flows.

This paper discusses the Baltic experience in managing capital flows. Though independence was re-established in 1991-1992, the discussion concentrates upon the latter half of the 1990's, due to data restrictions. The availability and quality of earlier data is insufficient for most purposes, and those were anyway exceptional years (Lainela – Sutela, 1994). The discussion con-

centrates upon Estonia and Latvia. The pegged exchange rate regime of the latter in fact has much reminded a currency board. The correlation of change in foreign exchange reserves and reserve money between May 1994 and February 2001 was 0.86 for Estonia, 0.40 for Latvia and 0.39 for Lithuania. Thus measured, Latvia with a peg is at least as currency board -like as Lithuania, which is a formally declared currency board. But the figures also – and perhaps even more importantly – underline that Estonia and especially Lithuania are far from simplistic orthodox currency boards. In the latter case one would ideally expect the correlation to be exactly 1.00.<sup>1</sup> Further, econometric estimates suggest that currency reserves and the monetary base are co-integrated both in Estonia and Latvia. Co-integration between currency reserves and broader monetary aggregates, on the other hand, is confirmed in neither case. Though differences in monetary regime between Estonia and Latvia should thus not be exaggerated, still a discussion of Latvia adds interesting information to the benchmark case of Estonia. Lithuania will be included in this paper more episodically.

In a currency board arrangement, authorities – while intervening automatically in foreign exchange markets – by definition do not sterilise capital flows. The success of the Baltic countries came from elsewhere. The very smallness of these countries has to a large degree protected them from speculative capital flows: with low equity market capitalisation and little if any debt instrument markets, there is simply almost nothing to invest in. All countries inherited zero debt from the USSR, and central government balances have been quite good, in Estonia by law, while Lithuania is something of an exception. There are hardly any inter-bank markets and the stock exchanges are almost dormant. Thus, in spite of full capital mobility, financial stability has been with the exception of banking crises well preserved. In short, these countries did not manage or control capital flows. They largely abolished, partly through sound fundamentals and partly through unintended consequences of policy design, the markets that might become the source of instability. This is a path not easily followed in other countries. In a way, the Baltics can be seen to have aimed, from the very beginning, not at establishing a full set of domestic markets but at integration by becoming regions in a fully-established North-Western set of markets. So far, this approach has served the Balts well. The experience of the German eastern Länder however warns that the long-term success of an approach of becoming regions is not automatic.

# 1 Overview

## 1.1 General

This section provides a brief background of the Baltic countries' experiences in capital inflows and outflows. That has to be set against the more general picture in Central and Eastern Europe. To do that, the analysis has to enter little-charted waters. Perhaps due to the small size of the Baltic economies and also reflecting the weakness of domestic economic research, little analytical literature is available on these countries. For this if no other reason the discussion has to remain preliminary.

In the financial field, the establishment and functioning of the Baltic currency boards has been discussed (Lopez-Claros and Garibaldi, 1998; Ghosh et al, 2000; Korhonen 2000; De Haan et al, 2001), also in a comparative perspective (Nenovsky et al, 2001). A survey of Baltic securities markets is also available (Korhonen et al, 2000), as are descriptions of monetary transmission mechanisms (Babich, 2001; Lättemäe and Pikkani, 2001; Vetlov, 2001). Baltic banking crisis have been discussed by Fleming et al (1997) and Hansson and Tombak (1999). Currency substitution in the Baltics has also been analysed (Saraevs, 2000; Heimonen, 2001; Vetlov, 2001), but otherwise Baltic monetary, financial and fiscal issues basically remain terra incognita for researchers. Analyses and calculations that would be readily available for most European economies simply do not exist. Measures for developing domestic research capabilities are only beginning to bear fruit.

The fast growth of global liquidity in the 1970's and 1980's also increased capital flows to such emerging markets which had problems in absorbing and managing the flows, due to undeveloped markets, policy tools and skills. Waves of currency crises emerged. Not only emerging markets were hit, but also well-established OECD-economies. The first crisis wave was set off by the collapse of the Bretton Woods system in 1976. The second wave followed the Latin American debt crisis in 1982, and the third one was the European EMS crisis of 1992. The most recent wave started in Asia in 1997. It also reached the economies of Eastern and Central Europe, partially through the Russian crisis of 1998.

This chain of events has given economists and policy makers much food for thought. The first explanations for recent financial crises were in terms of underlying macroeconomic disequilibria, usually domestic and foreign

debt. Later, the role of capital flows in the wake of capital account liberalisation was emphasised. In 1990-1996 the annual net capital inflow to emerging markets, including the transition economies, was USD 150 billion, or ten times higher than in 1984-1989. The flow seems to have peaked in 1996 at USD 260 billion and has declined since. The impact of the mere size of the capital flows has been multiplied by what has been seen as herding behaviour by investors, helping the contagion of crisis from one market to another (Begg 2001; Buch and Heinrich 2001). During the most recent crises, investors simultaneously withdrew from emerging markets, causing large and sudden capital outflows and more or less denying these countries access to finance.

These developments have caused much reconsideration (for a succinct summary see Zettelmeyer, 2001). While the earlier consensus had argued that the appropriate exchange rate regime would be somewhere between hard pegs and pure float, by the mid-1990's the standard argument was in favour of corner solutions: either hard peg or free float. Intermediate solutions were seen as hard to sustain and too crisis-prone (Eichengreen, 1999). The solution preferred for emerging markets was free float (Aghevli et al, 1991), though a fixed exchange rate was typically proposed as a policy anchor for transition economies. By late 1990's, however, the argument against free float was again gaining some popularity, largely due to recurring instances of instability. The fact also is that floats are rarely truly free. Evidently, intermediate solutions are getting less frequent but are not disappearing any time soon (Fischer, 2001). Many emerging markets are moving towards freer float; some are opting for hard pegs like currency board arrangements or currency unions.

The argument in favour of hard pegs is usually based on favourable macroeconomic performance. Pegs may be connected with more output volatility, but at least hard pegs seem to have a superior inflation performance (Ghosh et al, 2000). Overall, no exchange rate regime clearly dominates under all circumstances (Fischer, 2001). But in a country open to international capital movements, a peg has to be very hard and credible to be sustainable. Empirically (Poirson, 2001) it seems that large, inflation-prone countries, which are open to capital movements, externally vulnerable and have a diversified production base, tend to have a more flexible exchange rate arrangement.

In this light, the Baltic countries are somewhat odd men out. Their small size and non-diversified production base are consistent with fixed exchange

rates, but their inflation-proneness, openness to capital flows and external vulnerability do not seem to be.

A partly separate debate has been underway on optimal liberalisation of the capital account (see Begg, 2001; Buch and Heinrich, 2001). Ten years ago, the standard argument was in favour of sequenced liberalisation (Greene and Isard, 1991). Several transition economies, including the Baltics, chose to liberalise the capital account very fast. The record has been mixed, as some transition economies have met with financial crises. More generally, what was diagnosed as too speedy liberalisation in a number of emerging markets and the arguably positive experiences of some capital controls in a few countries have again turned the opinion in favour of sequenced and possibly slow capital account liberalisation. The IMF too has cautiously argued in favour of some market-based capital inflow controls (Fischer, 2001).

Again, the Baltic countries are exceptional. Their capital accounts were (almost) fully liberalised even before they had well-developed financial markets with sufficient supervision. They took a risk, and seem – in spite of the banking crises discussed below – to have gotten away with it. This paper answers the question “why”.

These developments are obviously relevant for European transition economies as well. In recent years, the economies of Eastern and Central Europe have also experienced both surges in capital inflows and rapid outflows (Buch and Heinrich, 2001). This has partly been due to such exogenous factors as the overall surge in international capital flows that have affected other emerging markets as well. Partly they have been due to such transition-specific features of these economies as exchange rate instability resulting from what has been seen as too long adherence to exchange rate based stabilisation programmes, slow convergence of inflation to international levels, widespread privatisation, and the rapid and significant opening of the capital account (although the speed and extent of liberalisation has differed considerably across countries).

Several factors have deepened the difficulties of managing capital flows for these transition economies as compared to most of the middle-income countries. The extent of capital inflows into the transition countries has been much larger; the gap between the levels of capital inflows and absorption capacity of the transition economies is large; and the inflows have coincided with structural changes and institutional deficiencies (weak banking system and poor banking supervision in many economies, low level of capitalisation

of stock exchanges, etc.). Compounding this is the lack of earlier experience with management of capital flows.

The Central and East European mainstream has been towards more flexible exchange rates and against a speedy fast liberalisation of the capital account. This, however, causes what many see as a problem in view of the EU and EMU-III accession. Before entering the Eurosystem, countries must by the Maastricht treaty have a pegged exchange rate (ERM-II) for at least two years. Membership in the EU demands additional capital account liberalisation. It is feared that this would invite added speculation. Also, the Maastricht criteria are seen as inconsistent in the case of the accession countries, because a number of non-policy induced causes, including the Balassa-Samuelson effect<sup>2</sup>, produce higher inflation there (Rosati, 2001). The solution available, it is argued, is either a re-negotiation of the Maastricht treaty or Euroisation.

Again, these considerations are probably not directly relevant for the Baltic countries. They have already liberalised, and the currency board arrangements in place are judged to be consistent with the ERM-II. Estonia – as well as Latvia and Lithuania, after having changed their peg to the euro – would enter the euro directly from their current currency boards.

Going beyond the preliminary comments just given, to which degree does the general picture of transition economies hold true for the three Baltic countries as well? Only partly, as will be seen below. Between 1994 and 2000 the foreign sectors of the Baltic countries did follow the overall picture evident across the European transition economies (CEEC-12 in Table 1). They ran current account deficits and had positive net capital inflow and increased reserves. Also the time profile of flows is broadly consistent with the general pattern. But given the very small size of the economies, the absolute scale of flows is naturally quite modest in the Baltics.

While the current account balance and change in reserves may generally move together in the case of currency boards, there will never be a one-to-one correspondence. Capital movements are often independent of the current account; they are also more mobile than trade flows; and trade and capital flows can be, but are not always, connected.

Table 1. Indicators of external developments in European transition economies (billions of USD)

	Current account balance			Net capital inflow''			Change in Reserves		
	1994-1998'	1999	2000	1994-1998'	1999	2000	1994-1998'	1999	2000
Estonia	-1.8	-0.3	-0.3	2.2	0.4	0.4	0.4	0.1	0.1
Latvia	-1.1	-0.7	-0.5	1.5	0.8	0.5	0.4	0.2	0.0
Lithuania	-3.7	-1.2	-0.7	4.8	1.0	0.8	1.1	-0.2	0.1
CEEC-12	-59.4	-24.1	-20.6	102.8	28.5	24.7	48.1	5.8	5.4

Source: BIS. ' Cumulative. '' Including errors and omissions

The Baltic countries have several specific features among transition economies. *First* of all, they are very small, even miniscule, with population ranging from less than 1.5 million in Estonia to more than 3.5 million in Lithuania. Estonia and Latvia in addition were in the 1990's the countries with fastest shrinking population in the world (The Economist, 2000, p. 15).

In terms of GDP, the minimal size of these countries is as evident. In 2000, the GDP sizes of Estonia, Latvia and Lithuania were 5.0, 7.2 and 11.2 billion US dollars (BUSD) respectively. That is less than or in the case of Lithuania at most 0.5 per cent of the German GDP. Put otherwise, the combined nominal GDP's of the Baltic countries amount to the size of the Luxemburg economy. Even on purchasing power parity (PPP), the ratios to Germany remain as low as 0.6, 0.9 and 1.2 per cent. This contributes to a very small absolute size of national financial markets. With an equity market capitalisation of around 35 per cent (Estonia), ten per cent (Lithuania) or just five per cent of GDP (Latvia) in 1999-2000, there is very little scope more major short-term financial inflows. Due to the fixed costs involved in entering any market, there will be only a few possible market counterparts in dealing with Baltic assets. More importantly, given the small equity markets and the total or near-absence of government bonds or bills to be discussed below, there are simply very few assets available. The amounts of certificates of deposit are also very minor. The ratios of domestic to German equity



market capitalisation were in end-2000 0.14 per cent for Tallinn, just 0.04 for Riga and 0.13 per cent for Vilnius. Sweden, on the other hand, reached 25.8 and even Poland 2.2 per cent of the German capitalisation.

*Second*, these are very open economies. As detailed below, all three countries run some of the most open trade and investment regimes in the world. The trade-to-GDP ratios are very high, ranging from 186.0 per cent in Estonia through 120.6 in Latvia to 89.9 in Latvia.). These countries also opted for privatisation primarily by sales to outside strategic investors. Their banking industries are also predominantly foreign owned. This kind of openness contributes to smaller equity markets and less need by Baltic entities to hold foreign assets, as detailed below.

*Third*, the Baltic countries emerged re-independent from the USSR just ten years ago. They had few institutional and natural resources at independence. But given that Russia adopted the foreign assets and liabilities of the USSR, the Baltics also emerged independent without any foreign or domestic debts. They were able to regain some pre-Soviet foreign assets, like the eleven tonnes of pre-war Republic of Estonia gold first used to back up the Estonian currency board in 1992. The original zero debt level has facilitated running quite sizable foreign deficits (see Table 2) without overly loss of credibility. Relative to GDP, Baltic foreign debts have surged to levels comparable with those elsewhere in Central Europe (EBRD 2001, p. 32), but the debt burden relative to export or public sector revenue remains very modest (EBRD 2001, pp. 34-49) in these very open economies with large public sectors. Foreign direct investment (FDI) has often been more than enough to finance the current account deficit.

Table 2. Current account balances in the Baltics, 1994-2001  
(per cent of GDP)

	1994	1995	1996	1997	1998	1999	2000	2001	2001:1-6
Estonia	-7.2	-4.4	-9.2	-12.2	-9.2	-4.7	-6.4	-6.5	-3.5
Latvia	-0.2	-3.6	-4.2	-6.1	-10.6	-9.6	-6.9	-6.3	-6.3
Lithuania	-2.1	-10.2	-9.1	-10.2	-12.1	-11.2	-6.0	-6.7	-4.6

Source: Bank of Finland Institute for Economies in Transition (BOFIT).  
2001 is an IMF projection.

In Estonia central government can by law not propose a budget with a deficit to the parliament, which has obviously helped to keep also actual deficits small. Even general government deficits (Table 3) have been quite well under control, with the partial exception of Lithuania. The present value of public debt is less than 50 per cent of fiscal revenue in all the Baltic countries. In Estonia, general government external debt (excluding assets held abroad) peaked in 1996 at 5.2 per cent of GDP. By end-2000, this was down to 3.1 per cent. Most of the debt is development bank co-financing for large infrastructure projects, and thus not market-forming. In Latvia public debt peaked in 1995 at 16.1 per cent of GDP, came then down to 10 per cent, and was increased to 13 per cent as a reaction to the Russian crisis in 1999. It was 13.2 per cent in end-2000. 61 per cent of that was external debt.

Table 3. General government budget balances in the Baltics, 1994-2001  
(per cent of GDP)

	1994	1995	1996	1997	1998	1999	2000	2001
Estonia	1.3	-1.3	-1.9	2.2	-0.3	-4.7	-0.7	0.0
Latvia	-4.0	-3.9	-1.7	0.1	-0.8	-4.0	-2.8	-1.8
Lithuania	-5.5	-4.5	-4.5	-1.8	-5.8	-8.2	-3.3	-1.4

Source: BOFIT. 2001 figures are IMF indicative criteria. According to partial data for 2001:1-6 Estonia is running a slight surplus, Latvia is within the criteria but Lithuania has somewhat surpassed it.

*Fourth*, though discussing this is beyond the scope of this paper, the Baltic initial conditions, policies and goals have tended to increase the probability of unorthodox and liberal solutions. The Estonian currency board solution of June 1992, followed after some mediocre stabilisation performance by Lithuania in April 1994, is the prime but not the only example of this (for a discussion see Feldmann and Sally, 2001).

## 1.2 Estonia

In a currency board arrangement, the monetary authority stands ready to exchange local currency for another (anchor) currency at a fixed exchange rate without quantitative limits. Thus, a given monetary aggregate has to be fully covered by foreign exchange; the credibility of the arrangements must be ensured legally; and the monetary authority cannot create money for the purpose of smoothing liquidity or support domestic financial institutions, unless it has sufficient excess reserves. These may be available.

In the Estonian case, the monetary aggregate covered is currency in circulation plus the deposits of commercial banks at the central bank. The reserve coverage has in practice been kept at about 110 per cent. There is no evidence that the amount of excess reserves has been used as a sterilisation method. The main monetary policy instrument is continuous and immediate participation in the spot foreign exchange market at the fixed exchange rate. There are no limitations on capital account transactions. But the Eesti Pank (Bank of Estonia) also has other policy instruments, detailed in Eesti Pank Annual Reports. It has kept minimum reserve requirements for commercial banks. These can be changed. The central bank can also change the composition of liabilities facing reserve requirements as well as the composition of reserve assets and their interest rate. Eesti Pank also keeps remunerated deposit facilities for commercial banks and has auctioned modest amounts of certificates of deposits. Further, it conducts banking supervision and licensing as well as acts as interbank clearing and settlement centre and provides the organisational and legal framework for the (very small) interbank money market. Thus, the Estonian currency board arrangement does not make central bank redundant.

Before 1991, an estimated 95 per cent of Estonia's outside trade was with the USSR. The little true foreign trade there was, was strictly controlled by the Moscow authorities, and two thirds of that was within the CMEA (Kukk, 1997). The same is true of Latvia and Lithuania as well. This dependence delivered a huge blow when the USSR market collapsed. There was also a massive terms of trade shift, as imported energy prices were suddenly increased. In the Baltic region as a whole, GDP declined by 40 per cent and industrial production by 60 per cent between 1990 and 1994, accompanied by hyperinflation in 1991-1992. The initial conditions of the three Baltic countries were thus exceptionally disadvantageous.

Estonia opted for a classical liberal system with almost complete liberalisation, stable exchange rate and the goal of a small state (though public expenditure actually remains high, with the government expenditure share of GDP fluctuating around 30-40 per cent without any clear trend). Table 4 gives the milestones of Estonian economic reform since 1989.

Table 4. Estonian economic policy reform in 1989-2000

1989	First private bank formed
1990	Price liberalisation started; state trading monopoly abolished
1991	Political independence re-established; small-scale privatisation started; first wave of trade liberalisation; law on foreign investment
1992	DEM-based currency board with 1 DEM = 8 EEK; Laar's reformist centre-right government in power; large-scale privatisation started; bankruptcy law; de facto current account convertibility
1993	Estonian Privatisation Agency established on the Treuhand model; almost all remaining tariffs abolished; Baltic free trade agreement signed
1994	Small-scale privatisation completed; full IMF article VIII current account convertibility and almost complete capital account convertibility reached; remaining non-tariff trade barriers removed; flat 26 per cent income tax introduced.
1995	Economic growth starts; WTO accession negotiations started; free trade agreements with EFTA and Ukraine; Association Agreement with the EU; application for EU membership; commercial code enacted; a centrist government after general elections
1996	Free trade agreements with the Czech republic, Slovakia and Slovenia
1997	10.4 per cent growth – the highest in Europe; European Commission recommends Estonia as one of six candidates on fast-track to EU membership; last remaining (insignificant) tariffs abolished
1998	EU accession negotiations commence; Europe agreement into force; pension reform law, EU-compatible competition law
1999	A centre-right government after general elections; Estonia becomes 135 <sup>th</sup> WTO member; law on introducing customs tariffs introduced
2000	Customs tariffs on agriculture against third countries introduced; Estonia (together with Slovenia and Cyprus) leads in the number of chapters closed in accession negotiations and becomes the first to close the chapter on free mobility of capital
2001	Railways privatised. Privatisation agency closed

Source: EBRD Transition Reports, Feldmann and Sally (2001), author's amendments.

As Table 5 shows, Estonia's fast-track policy reform has contributed to a structural transformation that has produced relatively fast growth. On the negative side, high unemployment coincides with other phenomena that have raised fears of a case of two nations.

Table 5. Estonian economic indicators

	1992	1993	1994	1995	1996	1997	1998	1999	2000
GDP growth, pc	-14.2	-8.8	-2.0	4.6	4.0	10.4	5.0	-0.7	6.9
Inflation, end-year	1076	89.8	41.7	28.9	14.8	12.5	6.5	3.9	5.0
General gov't budget balance, pc/GDP	-0.3	-0.6	1.3	-1.3	-1.9	2.2	-0.3	-4.6	-0.7
Average USD gross wage, period average	NA	NA	134	208	248	256	283	337	288
Unemployment, 2 <sup>nd</sup> q, LFS	NA	NA	NA	NA	17.1	16.4	14.0	13.0	13.9
Exports, MUSD	430	766	1211	1660	1764	2275	2674	2437	3259
Imports, MUSD	397	854	1557	2398	2876	3516	3928	3430	4237
Current account balance, pc/GDP	NA	1.3	-7.2	-4.4	-9.2	-12.1	-9.2	-5.8	-6.8
Nominal GDP, BUSD	1.04	1.64	2.28	3.54	4.37	4.63	5.19	4.84	

Source: BOFIT

The June 1992 currency reform was the basis for foreign transaction liberalisation. Some minor restrictions remained until full convertibility on current and capital account transactions followed in March 1994. The average weighted tariff was just 1.4 per cent by the end of 1993 and it went down to zero in 1997. There was no agricultural protection. The last remaining five export quotas and licences were abolished in 1995. The zero average weighted tariff of Estonia (in 1999) contrasts not only with EU (5.0) and Chile (9.0), but also with Hungary (13.3) and Poland (11.6). Until customs tariffs on agriculture against third countries were introduced in 2000 in anticipation of EU accession, Estonia and Hong Kong probably came closest in the world to complete free trade, defined as non-discrimination between own citizens and foreigners on international transactions.

In 2001, the only remaining restrictions on free mobility of capital in Estonia are residual. While FDI and credit operations are fully liberalised,

real estate investment by foreigners is subject to permit by county authorities. It has not always come automatically. Portfolio flows are otherwise free than that some residual restrictions concern investments of pension funds in non-governmental securities of certain countries, as well as investments in foreign real estate, which may not exceed 25 per cent of a pension fund's total assets. But such restrictions are very minor and no instruments for managing capital flows. Estonia scores 100 on the IMF capital account liberalisation index (Corker et al, 2000). As in any country, some indirect barriers for FDI linger (OECD 2000, p. 192-194). These have a very minor impact. Already by 1997, companies with foreign capital accounted for one third of output and generated over 50 per cent of exports.

Large-scale privatisation started in late 1992 and ended in 2001. It was aimed at core investors, who were often foreigners. Foreign service providers also have wide access. Still, it is easy to exaggerate the relation between privatisation and FDI. It is true that FDI and privatisation revenue per capita have been correlated in the transition economies, and Estonia's performance fits well into the general picture (EBRD 2001, p. 23). In spite of that, between 1993 and 1998 privatisation sales directly induced only about 17 per cent of total FDI (Berghäll, 2000). During the same years, foreign investors accounted just for 13.5 per cent of total privatisation sales. This seeming paradox is discussed in Section 2.2.

Selective incentives were provided to attract foreign investors for a short period in the early 1990's, but that was soon abandoned. Policy makers have effectively resisted tax holidays, free trade zones and other such vehicles, believing that the clarity and credibility of the non-discriminatory framework of rules is to be preferred. This distinguishes Estonia from most other transition economies. In 2001, however, Estonia introduced tax breaks for reinvested income, presumably to boost the role of such investment further (table 6).

Recently, Estonia has also emerged as a foreign investor itself. At the end of 2000, total external assets equalled 52 per cent of GDP or 44 billion kroons. The biggest item is reserves, followed by deposits abroad and FDI. Most Estonian foreign direct investment goes to Latvia (53.6 per cent) and Lithuania (31.3 per cent), primarily to finance (60.6 per cent of all Estonian FDI). Estonian banks, usually owned by Swedes, have established themselves in the other Baltic countries as well. Most of their investment is in loan capital, not in share capital. In addition to banking, bank-owned leasing companies

are an often-used financial institution both inside the country and in expansion to the rest of the Baltics. Overall however, the stock of FDI out of Estonia in end-2000 was only 22.2 per cent of FDI into Estonia.

Table 6. Structure of FDI in Estonia, 1998-2000, per cent

	1998	1999	2000
Share capital	70.1	57.4	54.4
Inflow	76.1	81.1	70.3
Outflow	-6.0	-23.7	-15.9
Reinvested income	4.8	16.2	29.1
Claims	-34.4	-41.0	-49.7
Liabilities	40.2	51.6	78.7
Loan capital (net)	17.3	26.4	18.3
Trade credit	-0.4	-0.4	1.8
Short-term loans	6.1	1.9	11.5
Long-term loans	11.7	24.8	5.0
Other capital	7.7	0.0	-1.7

Source: Bank of Estonia

Table 7. Structure of Gross Capital Inflows into Selected Transition Economies, 1990-1999

	FDI	Portfolio Investment	Other Investment
Estonia	41.8	17.1	41.2
Mean First Round Accession Candidates	57.2	22.4	20.4
Latvia	37.7	4.5	57.8
Lithuania	34.9	13.1	52.0
Mean Second Round Accession Countries	4.7	8.3	87.0

Source: International Financial Statistics in Buch and Heinrich, 2001.

The above-mentioned peculiarities of Estonia explain the divergence of the structure of capital inflows into Estonia from the peer group, the first round accession candidate countries into EU. Portfolio investment into Estonia is of slightly less importance than in the peer group, while “other investment” is much more important. This is probably primarily due to the relatively large bank loans and trade credits given to their daughter companies in Estonia by their foreign owners. But on the other hand, as domestic credit stock is still modest and bank credibility has been rather less than perfect, to some degree foreign bank lending has been used as a preferred alternative to domestic one. Finally, since 1996 the Bank of Estonia does not charge any fees neither impose spreads on the foreign exchange operations between kroon and euro area currencies (during 1996-1999 between the kroon and DEM). There are thus no specific transaction costs between the kroon and euro area currencies. Obviously banks will prefer euro area markets both for liquidity management and credit resources. There is no reason to think that such “other investment” is any less stable than foreign direct investment.

### 1.3 Latvia

As chronicled in Table 8, Latvia’s progress in policy reform has been great. Latvia was a little later to embark upon reform than Estonia. In spite of that, Latvia was actually slightly faster in adopting currency convertibility and entering the WTO. But basically, in contrast to Estonia’s unilateral free trade regime, Latvia has followed a more mainstream approach. Protectionist pressures of the kind not unusual in many other countries as well meant that restrictions on industrial acquisitions by foreigners and the ban on foreign ownership on land existed for a few years. This was basically directed against Russian entities, and did not apply to countries with which Latvia had a mutual investment agreement. Contrary to Estonia, Latvia also opted for incentives for foreign investment in priority sectors like construction and light industry. Estonia’s FDI licensing procedures are probably simpler, and there are fewer exceptions for foreigners. Still, both countries scored four, then the highest point, already in the first EBRD Transition Indicators (1994) for progress in “trade and foreign exchange system”.

Mobility of capital is almost as completely free as in Estonia. As in Estonia, FDI and credit operations are free, there are similar restrictions in real estate investment and also in portfolio flows concerning investment by pension funds abroad.



Table 8. Latvian economic policy reform in 1990-2000

1991	Competition law and law on foreign investment enacted
1992	Major reform programme adopted with price and trade liberalisation, small-scale privatisation and stabilisation; two-tiered banking system established; banking law enacted; IAS accounting introduced; bilateral free trade agreement with Sweden
1993	Company law enacted; stock exchange established; bilateral free trade agreements with Finland, Norway and Switzerland; distribution of privatisation vouchers started; new currency (lat) introduced
1994	Privatisation law adopted; BIS bank capital adequacy requirement introduced; Baltic Free Trade agreement adopted, but Latvia continues agricultural protection; the lat informally pegged to the SDR at 1 SDR = 0.7997 LVL; current and capital account convertibility
1995	Banking crisis; stock exchange begins trading; new banking law enacted, first state-owned bank privatised; distribution of privatisation vouchers completed; Europe Agreement
1996	Bankruptcy law enacted; small-scale privatisation almost completed; banking supervision strengthened
1997	New competition law established; first corporate Eurobond and GDR issues; licensing of new enterprises simplified
1998	Anti-monopoly office established; laws on pensions, energy, insurance and railways enacted
1999	Pension system reformed; WTO membership several months before Estonia; invitation to start EU accession negotiations
2000	Unified financial sector supervision legislated

Source: EBRD Transition Reports, author's amendments

In 1999, the Latvian average weighted tariff was 5.3 per cent, lower than the average in Central Europe and almost exactly the same as in the EU. Trade to GDP ratio was 120.6 per cent, halfway between Hungary and Slovenia. There is no doubt that Latvia is an open economy with very low tariffs. In spite of that, tariffs were used as an industrial policy tool. Behind the low average tariff of 1999 were 14 tiers of tariffs, ranging from zero to 75 per cent (IMF 1999). Raw materials and capital goods had very low tariffs, while the standard tariff for consumer goods was 20 per cent.

Another difference from Estonia concerned privatisation. Latvia, obviously to favour residents, first opted for a voucher based privatisation method.

Only later were foreigners allowed to buy vouchers. The voucher programme was a failure, and by 1996 the authorities were deciding on privatisation methods case by case. For most enterprises, this implied a combination of different methods, reflecting the various goals that the authorities had in each case. This usually led to dispersed ownership structure. Estonia has opted for strategic, often foreign owners. In some major cases, like Lattelekom, the Latvian authorities also opted for a sale to foreigners. In both countries the annual variation in FDI received is relatively large, reflecting ongoing privatisation and the weight of single deals. In the 1990's, Estonia received about USD 1600 per capita in FDI, while the corresponding figure for Latvia is USD 770. In these terms, Estonia is one of the leading accession countries, while Latvia is about average.

Table 7 above shows that the structure of capital flows into Latvia (and Lithuania) is more like that into Estonia than that into the peer group, the second round accession candidates. The background is also basically similar to that in Estonia. The share of other investments (bank loans and trade credit) is however particularly in Latvia even greater than in Estonia. That at least partly reflects the traditional role of Latvian banks in channelling Russian and other CIS monies into international financial markets. The high share of other investments into Lithuania is more difficult to explain, but may well reflect foreign bank finance in the absence of domestic supply.

One difference between Estonia and Latvia that has attracted some attention concerns differences in exchange rate regimes. The standard argument has been (Saavalainen, 1995), that Estonia's currency board provided for greater transparency and credibility than Latvia's informal peg (also see Ghosh, Gulde and Wolf, 2000). Therefore, the costs of disinflation may have been somewhat less in Estonia. This argument, however, should only be relevant for the early stabilisation period. Later, "the exchange rate policy of the Bank of Latvia is similar to that of a currency board, and the monetary base is backed by gold and foreign reserves" (Bank of Latvia, 2001). Even in the early period "the Latvian experience confirms that inflation can be effectively and rapidly reduced under a money-based stabilization and that the exchange rate peg is not a precondition for fiscal discipline and quick stabilisation" (Zettermeyer and Citrin 1995, p. 99). Perhaps somewhat paradoxically, the actual independence of the Bank of Latvia seems to have been much stronger than its legislative base (de Haan et al, 2001). This is at least partly due to the person of the central bank governor. The legal and institu-

tional basis of central bank independence and of the currency board –like arrangement is weaker in Latvia than in Estonia.

Both Latvia and Estonia are success stories of economic policy reform, and Latvia's, like Estonia's, recovery from the deep economic crisis of the early 1990's has been fast (Table 9). The banking crisis of 1995 however wiped away almost a fourth of M2. Also the 1998 Russian crisis had much bigger impact in Latvia than in Estonia (see Section 2.5). Latvia as well as Estonia has had problems in maintaining budget and current account balance. Starting from zero levels of debt has helped both countries managing deficits.

Table 9. Latvian economic indicators

	1992	1993	1994	1995	1996	1997	1998	1999	2000
GDP growth, pc	-34.9	-14.9	0.6	-0.8	3.3	8.6	3.9	1.1	6.6
Inflation, end-year	959	35.0	26.3	23.1	13.1	7.0	2.8	3.2	1.8
General gov't budget balance, pc/GDP	-0.8	0.6	-4.0	-3.9	-1.7	0.1	-0.8	-4.0	-2.8
Average USD gross wage, period average	NA	NA	128	170	179	207	276	241	244
Unemployment, 2 <sup>nd</sup> q, LFS	NA	NA	NA	NA	22.2	15.9	14.7	14.0	14.4
Exports, MUSD	800	1054	1020	1367	1488	1839	2012	1729	1707
Imports, MUSD	840	1051	1321	1947	2286	2689	3138	2957	2999
Current account balance, pc/GDP	14.0	15.7	-0.2	-3.6	-4.2	-6.1	-10.6	-9.6	-6.8
Nominal GDP, BUSD	1469	2175	3650	4453	5136	5640			

Source: Official statistics

While Estonia opened its EU accession negotiations in late 1997, Latvia followed two years later. By mid-2001, Estonia had opened 29 and closed 19 chapters of the acquis. In these terms, it is one of the most progressed accession countries. Latvia had also opened 29 and closed 16 chapters, including the ones on free movement of goods and capital.

## 2 Analysis of the Capital Inflows/Outflows and the Macroeconomic Impacts

### 2.1 Structural Characteristics of the Capital Flows

Table 10 gives the Estonian and Table 11 the Latvian summary balance of payments in 1997-2000. For Estonia, it shows a very large trade deficit of around 15 per cent of GDP during the recent years. Estonia however benefits greatly of (mostly Finnish) tourism and (mostly Russian) transit of goods, primarily oil. It is unclear, whether all transit is properly accounted for in statistics. Serious estimates for the share of transit in Estonian GDP range from ten to twenty per cent (for the latter see Bronshtein, 2001). In official statistics, the weight of services balance is much less and the current account deficit is “only” less than 10 per cent of GDP.

The current account balance is more than covered by capital and financial flows into the country, leading to growing official reserves. Net direct investment alone covered the current account deficit in 1998 and 2000 (and almost in 1999). Neither the government nor the monetary authorities have borrowed from abroad, while the banks have.

Given the fact that revisions to Latvian balance of payment have been sometimes quite large – there was also a major revision of Estonia’s balance of payments for 1999 and 2000 in June 2001 – , the capital and financial flows shown in Table 11 should be taken as tentative. (The IMF figure for errors and omission in 1995 (not shown in the table), amounts to half of Latvia’s exports!) But without doubt, Latvia like Estonia has been running a very major trade deficit. It has usually been about 15 per cent of GDP, but peaked at 18.6 per cent in 1998. In Estonia, travel is a net earner, while in Latvia it has a deficit. Transportation balance, basically transit between Russia and the Baltic Sea, has in Latvia a very major importance: it alone covers about half of the trade deficit. Informal estimates put the weight of transit in Latvian GDP to at least a quarter. Contrary to Estonia, direct foreign investment covered the current account deficit only in 1997 (and then with a huge marginal), but has since declined to more than fifty per cent of the deficit. Portfolio investment seems to fluctuate wildly. In a small market a single deal shows up prominently in statistics.

Table 10. Estonia's summary balance of payments in 1997-2001  
(millions of DM)

	1997	1998	1999	2000	2001Q1
Current account	-977	-845	-451	-680	-183
Trade balance	-1957	-1966	-1512	-1687	-385
Exports	3981	4723	4624	7002	2018
Imports	-5937	-6689	-6137	-8688	-2403
Services balance	1029	1006	1043	1149	238
Receipts	2296	2601	2744	3186	716
Payments	-1267	-1594	-1701	-2037	-478
Income	-251	-146	-188	-435	-120
Current transfers	203	260	207	293	83
Capital and financial account	1369	859	740	945	-137
Capital transfers	0	3	2	35	2
Financial account	1369	856	737	910	-139
Direct investment	223	999	401	700	374
From abroad	462	1009	556	831	408
Outward (by Estonians)	-239	-10	-155	-130	-34
Net equity investment	66	113	435	-61	54
Loans and other investments	1081	-256	-99	271	-567
of which:					
Banks	797	37	11	314	-451
Government	-79	-103	-60	24	5
Monetary authorities	-38	-38	-25	-15	-12
Errors and omissions	-46	2	-64	19	18
Overall balance	346	16	225	284	-301

Source: IMF

Table 11. Summary balance of payments of Latvia, 1997-2000  
(millions of USD)

	1997	1998	1999	2000
Current account	-278	-613	-646	-512
Excluding official transfers	-320	-695	-707	-539
Trade balance	-848	-1130	-1027	-1068
Exports, fob	1838	2011	1889	2067
Imports, fob	-2686	-3142	-2916	-3135
Services	428	357	336	467
Transport	515	506	522	573
Travel	-76	-69	-151	-111
Other	-11	-80	-35	5
Income	41	42	-48	-3
Transfers	77	107	93	92
Capital and financial account	361	614	806	507
Capital transfers	14	14	13	22
Financial account	347	600	794	485
Direct investment, net	515	303	331	380
Portfolio investment, net	-572	-7	284	-128
Other investment	404	482	179	233
Errors and omissions	29	62	5	15
Overall balance	102	63	165	10

Source: IMF

Table 12 presents a number of indicators of Estonian external vulnerability. The table confirms the picture already arrived at: as long as the services balance and FDI remains as greatly positive as they have been, Estonia's external vulnerability should be no major consideration.

Table 12. Selected indicators of Estonian external vulnerability  
(in per cent GDP, unless otherwise indicated)

	1997	1998	1999	2000
Public sector debt, gross	7.6	6.4	7.3	6.3
M1 growth, 12-month basis	24.0	-6.3	32.1	20.4
Private sector credit growth, 12-month basis	79.0	11.7	6.3	30.3
Current account balance	-12.1	-9.8	-5.8	-6.8
Capital and financial account balance	17.0	9.4	9.0	9.0
of which:				
inward portfolio investment	9.3	0.1	2.7	1.5
other investment (loans etc)	13.4	-2.8	0.0	4.4
inward FDI	5.7	11.0	5.9	8.1
NFA of banking system (in mln DEM)	635	639	1003	1137
Short-term foreign assets of banking system	737	605	825	971
Short-term foreign liabilities of banking system	1677	949	1338	1699
Broad money to reserves	1.9	1.9	2.1	2.0
Total short term external debt to reserves	0.9	0.9	0.9	0.8
Total external debt	57.1	53.5	59.4	60.5
of which:				
public sector debt	4.3	4.3	4.9	4.1
Net external debt	16.3	15.0	15.4	17.2
Debt service to exports	8.1	8.2	7.4	6.8
Foreign currency debt rating (S&P)	BBB+	BBB+	BBB+	BBB+
Spread between TALSE and EURIBOR (pc p.)	10.5	13.5	0.7	0.4

Source: IMF. TALSE is the Tallinn interbank borrowing rate

Table 13 gives similar indicators for Latvia. The external figures are generally somewhat worse than for Estonia, but should not be a source of major concern as long as major transit revenue and FDI is forthcoming. Something else is worth consideration. In both countries the growth of M1 and private sector credit has been quite fast since 1999, and this has continued into 2001. This is usually explained as a shift in monetisation following foreign take-

over of the banking sector, but questions remain. On the other hand, the reported share of bal loans remains very low in both countries, only about five per cent in Estonia.

Table 13. Selected indicators of Latvian external vulnerability  
(in per cent GDP, unless otherwise indicated)

	1997	1998	1999	2000
Public sector debt, gross	12.0	10.5	13.1	13.2
M2 growth, end period	39	6	8.0	28
Private sector credit growth, 12-month basis	76	59	15	37
Current account balance	-5.1	-9.8	-9.7	-7.2
Capital and financial account balance	6.2	10	12.1	7.1
of which:				
inward portfolio investment	-10.2	-0.1	4.3	-4.7
other investment (loans etc)	7.2	5	2.7	6.2
inward FDI	9.2	5.0	5.0	5.6
NFA of banking system (end of period, MUS\$)	1049	729	624	876
Short-term foreign assets of banking system				
Short-term foreign liabilities of banking system				
Broad money to reserves	2.0	1.7	1.9	2.4
Total short term external debt to reserves			2.0	2.5
Total external debt	49.6	49.1	57.7	66.9
of which:				
public sector debt	7.4	7.7	10.6	9.9
Net external debt	3.5	5.5	10.8	13.3
Public debt service to exports	7.0	3.8	4.2	7.4
Foreign currency debt rating (S&P)			BBB	BBB
Spread of benchmark bonds (pc p.)			1.9	1.0

Source: IMF.

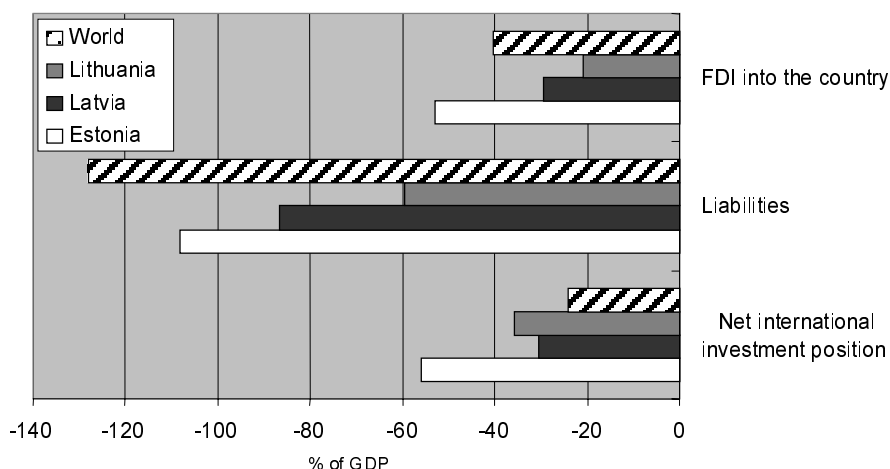
As mentioned above, the largely foreign ownership of the Baltic banking systems gives a peculiar twist to the Baltic net international investment positions (NIIP) in international perspective (Korhonen, 2001). Estonia's NIIP at end-2000 was billion euros (BEUR) -3 (or -56 per cent of nominal GDP), Latvia's BEUR -2.3 (-31 per cent), and Lithuania's BEUR -3.7 (-36 per cent). In gross terms, Estonia's liabilities are 108 per cent of GDP, Latvia's



87 per cent and Lithuania's 60 per cent. The difference between gross and net is mostly central bank foreign exchange reserves. Also many Baltic commercial banks have substantial assets abroad, and this is especially true in Latvia.

Compared with the some 60 countries represented in the IMF database, Baltic gross liabilities are relatively modest. On the net basis, on the other hand, the Baltic international investment position looks clearly more negative than the world average (see Graph 1). In reality, this comparison gives an overly stark picture of the situation, as most Baltic banking and large parts of industries are foreign owned. A Baltic bank owned by a Nordic banking major is in no need for foreign assets of its own to remain liquid and solvent. – Overall, Baltic internationalisation has been more about being taken over by foreign owners, than about borrowing from or extending abroad.

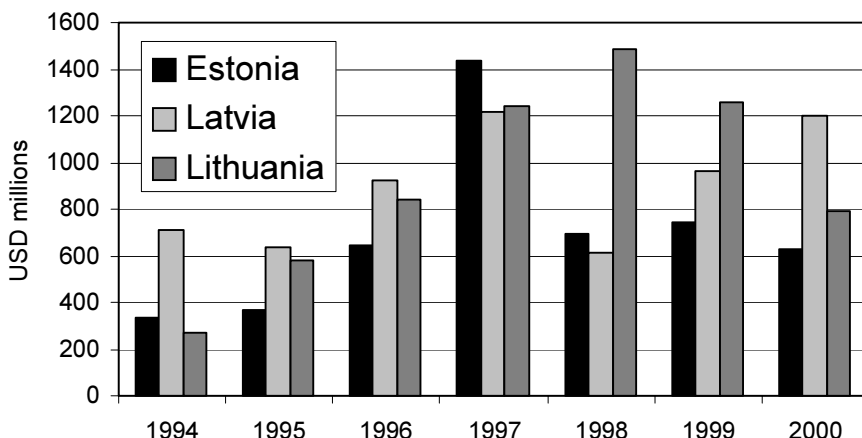
Graph 1. Baltic and World International Investment Positions, end-2000  
(Korhonen 2001)



As explained earlier, the Baltic countries started without any foreign debt, and the role of public foreign debt still remains very minor (Tables 12-13). Estonia's and Latvia's public foreign debt as share of GDP is in single digits, and even Lithuania's is no more than 17 per cent. These are low figures. Within private foreign liabilities, foreign direct investment dominates. The local debt and equity markets are still quite undeveloped. The share of port-

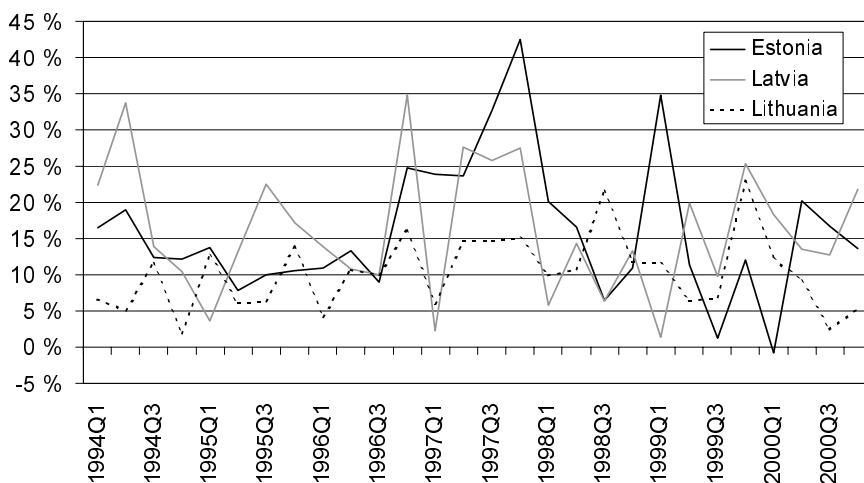
folio investment is highest in Lithuania, where the stock of foreign portfolio investment is 17 per cent of all foreign liabilities. The share of FDI in all foreign liabilities at the end of 2000 was 35 per cent in Lithuania, 49 per cent in Estonia and 34 per cent in Latvia. These countries are thus not very exposed to short-term capital flows (Korhonen, 2001). The small existing debt markets are strongly dominated by treasury bills. In end-2000, foreigners owned just 3 per cent of Latvian and 1.1 per cent of Lithuanian treasury bills.

Graph 2. Annual financial flows to Baltic countries



Graphs 2-5 give the comparative view of Baltic foreign financial flows. In USD terms, financial flows to Baltic countries peaked in 1997 (Graph 2). This was a rare year of an equity market boom in the Baltics. After that, aggregate financial flows have remained on the 1996 level and almost stable in Estonia. In Latvia as well, they declined after 1997, but have since recovered and reached in 2000 again the 1997 level. That year, no single large project dominated. There a number of minor ones underway. In Lithuania, they increased until 1998, when the peak was caused by telecommunications privatisation. Since then, financial flows have remained higher than in Estonia, though on a declining trend in the absence of further large-scale privatisation. In no case was the flow even nearly negative.

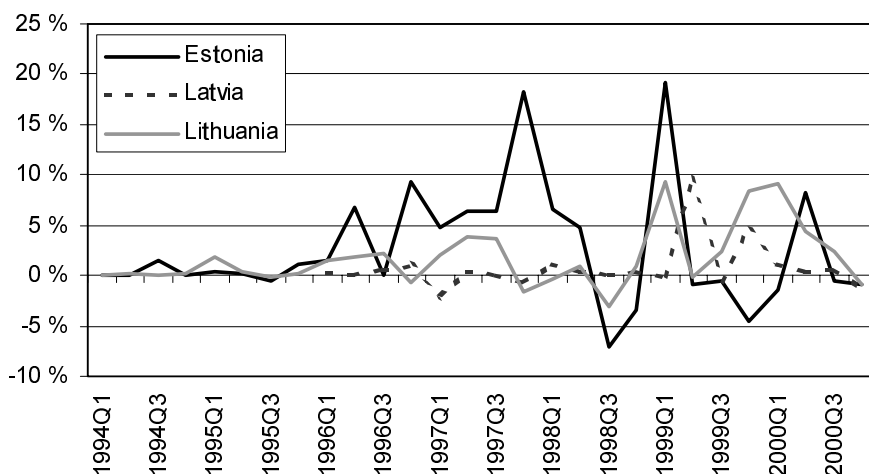
Graph 3. Quarterly financial flows to Baltic countries, per cent of GDP



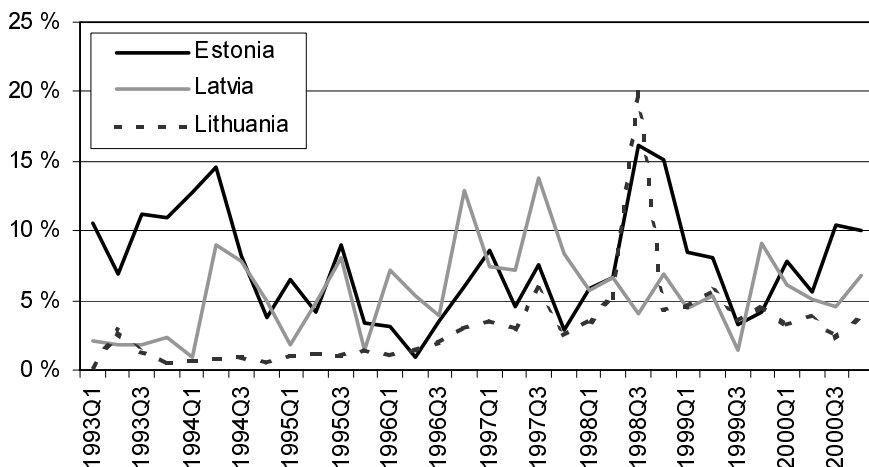
As Graph 3 shows, on a quarterly level there is much more variation. This is partly due to the small size of the economies. Relative to the GDP, financial flows are often very high, and even a single investment or credit can move the curve quite violently. Thus, the Estonian peaks in 1998 and 1999 are both due to money injected by major Swedish banks into Estonian banks the control of which they had just acquired.

Graph 4 shows that most of the variability in quarterly financial flows is not due to speculative portfolio investment. In fact, portfolio investment is quite modest in size, usually less than ten per cent of GDP. There may be more variability in FDI, as one would probably expect in case of very small countries.

Graph 4. Portfolio investment as per cent of GDP in the Baltic countries



Graph 5. Quarterly foreign direct investments into the Baltic countries, per cent of GDP.



## 2.2 Role of the Banking Sector and the Capital Market

The first Soviet commercial bank was established in Estonia in 1987. By 1992 the Baltics had a total of 122 separate banks, including branches of foreign banks. The number of banks has since declined through bankruptcies and particularly consolidation. In end-2000, the two biggest banks accounted for 83.5 per cent of Estonian and three biggest for 51 per cent of Latvian bank assets. All banks have been privatised in Estonia. In Latvia, only two relatively small banks are still state owned, while in Lithuania, when the privatisation of the savings bank finally succeeded in 2001, the remaining state-owned is the agrarian bank, the third largest of all.

As in other transition economies, not all banks service a large clientele. It is informally estimated in Latvia that ten of the existing 22 banks are very narrow based institutions, which basically accept liabilities from the area of the former Soviet Union and place them into third countries. This is not regarded a systemic risk, as these banks are usually very small. FATF, the OECD-affiliated Money Laundering Task Force argue in their recent annual report that while much has been done by Latvia to prevent money laundering through its banking system, much also still remains to be done to make the controls fully operational ([http://www.oecd.org/fatf/pdf/AR2001\\_en.pdf](http://www.oecd.org/fatf/pdf/AR2001_en.pdf)).

At the same time, the share of foreign ownership in the banking sector has ballooned. By early 2001, measured by capital, the share of foreign owned banks was in Estonia about 90 per cent, almost 70 per cent in Latvia and 58 per cent in Lithuania. Two Swedish banks, Swedbank and SEB, control five of the biggest banks in the Baltics. They have a combined market share of 51 per cent of bank assets and 60 per cent of all bank loans. When Swedbank and SEB announced their intention to merge in early 2001, monopoly fears arose, especially in Estonia and Lithuania (Jones, 2001). The Lithuanian dominant savings bank was sold to Swedbank-dominated Estonian Hansabank, but with the provision that in case of the Swedish merger being implemented, Hansabank should sell the savings bank. SEB already owns the largest Lithuanian commercial bank. In the end, these precautions proved unnecessary as EU competition authorities blocked the planned Swedish fusion. That was on basis of market concentration worries in Sweden.

Table 14. Number of banks at year-end

	Estonia	Latvia	Lithuania
1992	43	52	27
1993	22	61	27
1994	22	55	27
1995	16	40	16
1996	15	33	12
1997	12	31	11
1998	6	28	12
1999	6	24	13
2000	6	22	14

Source: National central banks

The Baltic countries remain largely cash-based and underbanked. Fries and Taci (2001) have compared the size of the banking sector in 16 transition economies with a market economy benchmark, estimated for a sample of 127 developing and industrialised market economies. The benchmark tells what would the size of the banking sector be if the Baltic countries were “average market economies”. As shown in Table 15, the ratios of credit to GDP are still far from the benchmark in all Baltic countries. Contrary to most transition economies in the Fries and Taci (2001) comparison, in the Baltics the nonprivate sector has borrowed relatively even less than the private sector. (Estonia in the aftermath of the Russian crisis in 1999 is a marginal exception.) This reflects the initial zero debt inherited from the USSR as well as the prudent fiscal policies pursued.

Domestic saving ratios have been relatively low and even declining in all the Baltic countries during the late 1990's. Latvia started highest at about 28 per cent in 1993, but also declined fastest to about 8 per cent in 1998. Estonia's saving rate was 26 per cent in 1993 but just 18 per cent in 1999, while Lithuania started at 16 per cent and slid to 12 per cent in 1999. This decline in all countries has many reasons, among them the loss of bank credibility after recurrent banking crises, low income levels and the hugely improved post-socialist supply of consumer goods, whose prices tend to be relatively high. High prices – together, from the point of view of the credit institution, with the lack of suitable collateral – have also contributed to the popularity

of leasing as a form of non-banking (but often bank-owned) financial institution. But low saving ratios are also a consequence of underdeveloped financial markets. Not only foreign investors, but also domestic savers have very few assets to choose from. Having low monetisation ratios may be good for stability, but it is also bad for saving behaviour. This may be one of the vulnerabilities of the strategy of becoming regions, discussed in this paper.

Table 15. Ratios of credit to GDP in the Baltic countries and their market economy benchmarks, 1994-1999

	Estonia	Latvia	Lithuania
1994			
Ratio of total credit to GNP	11.0	22.6	19.0
Market economy benchmark	49.9	46.0	47.1
Distance from the benchmark	38.9	23.5	28.1
Ratio of private sector credit to GDP	14.1	16.4	17.6
Market economy benchmark	41.7	37.3	38.5
Distance from the benchmark	27.6	20.8	20.9
1999			
Ratio of total credit to GDP	34.6	18.8	15.8
Market economy benchmark	58.9	52.3	54.1
Distance from the benchmark	24.2	33.5	38.3
Ratio of private sector credit to GDP	26.4	15.7	13.0
Market economy benchmark	52.2	44.6	46.6
Distance from the benchmark	25.9	28.9	33.6
1994-1999			
Change in the total credit to GDP ratio	23.7	-3.8	-3.2
Change in the private sector credit to GDP ratio	12.2	-0.7	-4.6

Source: adapted from Fries and Taci (2001), Tables 1 and 2

If banks can only borrow little at home, they have to borrow from abroad. Low domestic saving ratios thus go some way in explaining the high share of “other investment” in capital inflow (Table 7, above).

Once again, Estonia differs from the other two countries. Credit ratios are higher and the distance from the benchmark smaller than in Latvia and Lithuania. Though still behind the benchmark, Estonia actually belongs to the more monetised among the transition economies. Furthermore, any Baltic convergence towards the benchmarks is for 1994-1999 only visible in Estonia. Latvia and Lithuania have not only dropped even further from their respective benchmarks, even their absolute credit to GDP ratios have dropped. In Latvia, credits to the non-private sector have dropped, while the opposite is true in Estonia and Lithuania. This might be evidence of crowding out of the private sector by public sector financing needs. Currency boards prevent inflationary finance of public sector deficits by the central bank. The need to raise bank finance of major deficits, as was the case in 1999 in the aftermath of the Russian crisis, as recession set in, may thus lead to crowding out which would be an unwanted consequence of the currency board. However, another explanation – especially in the case of Latvia – is the banking crisis of 1995, when a large part of consolidated banking sector balance sheet was wiped out.

The comparison between 1994 and 1998 is marred by the 1998 Russian crisis, which had a major impact especially on the Latvian banking industry. In 2000, however, Baltic banking grew fast. Bank credits increased by 28 per cent both in Estonia and Latvia. Authorities see this as a long-expected catching-up process, not as the creation of a potential bad loans problem. Fast growth has continued into 2001.

In a strict currency board, the central bank has no resources to intervene in the banking sector. In the Baltic arrangements, central banks have accumulated excess reserves backing the monetary base at over 100 per cent: the currency board rule has only determined the upper limit of money supply. In addition, the central banks are able to change the reserve requirements of banks, thus affecting both money supply and bank solvency.

The Bank of Estonia has used its excess reserves to provide liquidity support to problem banks during banking crises. In 1992 after some liquidity support, the three largest banks were bankrupted in a crisis to a large part triggered by freezing of accounts at the Moscow Vneshekonombank. In one case a bank was bankrupted without bailing out creditors (Lopez-Claros and Garibaldi, 1998, p. 15). Two of the banks were merged forming a state owned bank which unfolded in the next crisis in 1994-1995. The crisis also hit another bank (Social Bank) with privileges in government payment traffic. Af-



ter the state diversified its payment traffic, this bank that had engaged in connected lending went into trouble and had to be supported in 1994-1995. The crisis dragged on for about a year, and the central bank used about six per cent of base money to soften it. Shareholders suffered, but not creditors, who were bailed out at government expense (Pautola and Backé, 1998; Lopez-Claros and Garibaldi, 1998). Again in 1998, the central bank made two small banks merge and became the majority shareholder of the new bank. Later, the Eesti Pank was strongly criticised for intervening too late in another problem bank (Moelgaard, 1998). Such measures, however, though repeated, have been rather the exception than the rule. Both Estonia and Latvia have generally adopted the tough line of liquidating the most insolvent banks, even when they have been major ones.

In the inter-war period, Riga was the undisputed financial centre in the Baltics. To re-attain this role, Latvian authorities accepted a very fast growth of the banking industry in the early 1990's. In the absence of alternative assets, banks found funding easy, tied loans were frequent and banking supervision weak. The ensuing crisis in 1994-1995 wiped away 35-40 per cent of bank assets, 53 per cent of household savings and a quarter of the money stock (Hansson and Tombak, 1999). The political economy aspects of this crisis are not completely clear.

The early growth of the Latvian banking sector was fuelled by money flowing from Russia and the rest of the former Soviet Union. In 1994 alone, as the liabilities of Latvian banks increased by 97 per cent, their foreign liabilities ballooned by 337 per cent (Hansson and Tombak, 1999). Investors from the former USSR needed foreign vehicles, Latvia was near by, actively looking for investors and provided a liberal environment. Some of investment was connected with Latvia's role as a transit route for commodities. The partial stabilisation of the Russian economy, with very high interest rates, lead to increased repatriation of money placed in Latvia and elsewhere. This, to some extent, triggered the 1994-1995 crisis.

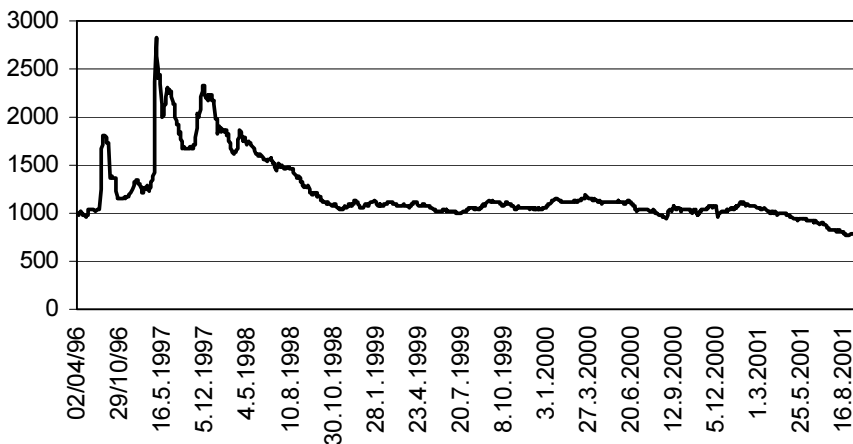
By August 1998, Latvian banks on the average had more than ten per cent of their assets in Russia. In the aftermath of the Russian crisis the banks most exposed faced deposit withdrawal, and the central bank had to offer liquidity support. Two banks were bankrupted and a third one temporarily closed.

The crisis did not scare all Latvian banks away from Russian markets. In 2000, foreign-origin deposits in Latvian banks increased by 57 per cent, do-

mestic-origin ones “only” by 37 per cent. By end-2000 Latvian banks are 69 per cent funded from deposits, and 53 per cent of them had come from abroad. The Central Bank of Russia regards Latvia an off-shore centre, and in June 2001 Latvian banks had to close down their accounts in Russian banks.

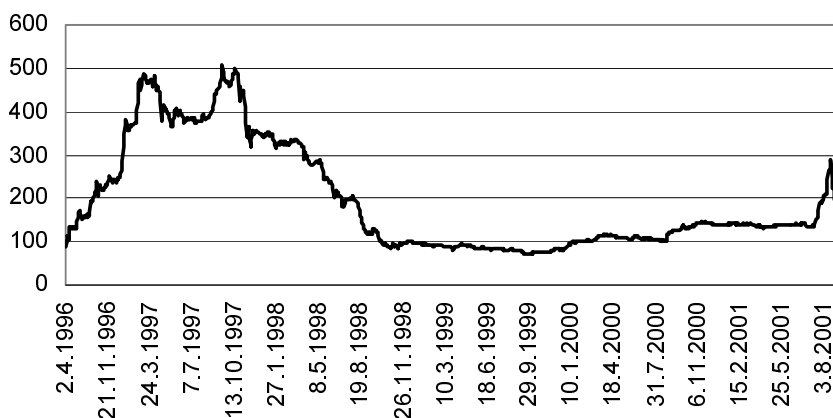
Similarly, during the 1995 banking crisis the Bank of Lithuania provided some liquidity support for a small bank (Aura Bank) that had run into difficulties. But when the largest private bank (Innovation Bank) and two minor ones got into trouble, the resources of the central bank proved inadequate. The trouble had to be solved through government loan guarantees. This experience contributed to a decision by the Bank of Lithuania – which had opposed the adoption of the currency board in the first place (Lainela and Sutela, 1994) – to exit the currency board (Bank of Lithuania, 1997). In addition to lender of last resort functions, the bank wanted to be better able to sterilise capital inflows and generally pursue monetary policies. Having originally pegged the litas with the dollar, the Lithuanian economy has also suffered from appreciation. Still, export growth has been fast. Both public sector and foreign deficits have been consistently high at several per cents of GDP. Faced with suspicions of unsustainability, Lithuania has in fact been unable to exit the currency board. In July 2001, Lithuania announced that the litas will be re-pegged from dollar to euro on 2 February 2002.

Graph 6. The Lithuanian Litin-G stock exchange index, 1996-2001



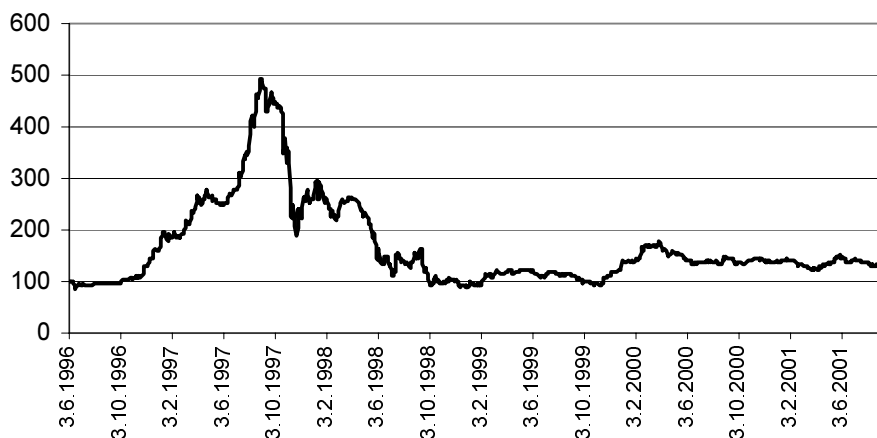
Lithuania was the first Baltic country to establish equity markets (Korhonen, Kuus and Zirnask, 2000). The Vilnius stock exchange was opened in 1993 with a large listing of privatised and new companies. However, there was practically no trade in the vast majority of these companies until much later. The stock exchange took off in 1996 and the Litin index peaked in early 1997. After that, the index has declined steeply in 1998 and later stagnated so that in 2001 it just reaches the starting level of January 1996. The market has remained highly illiquid with a very low turnover. Market capitalisation has fluctuated between 10-20 per cent of GDP and the annual trading value has been just a couple of per cent of GDP. Most trade has been in treasury bills issued to finance the chronic budget deficits.

Graph 7. The Latvian Dow Jones Riga Stock Exchange Index LVL  
1996-2001



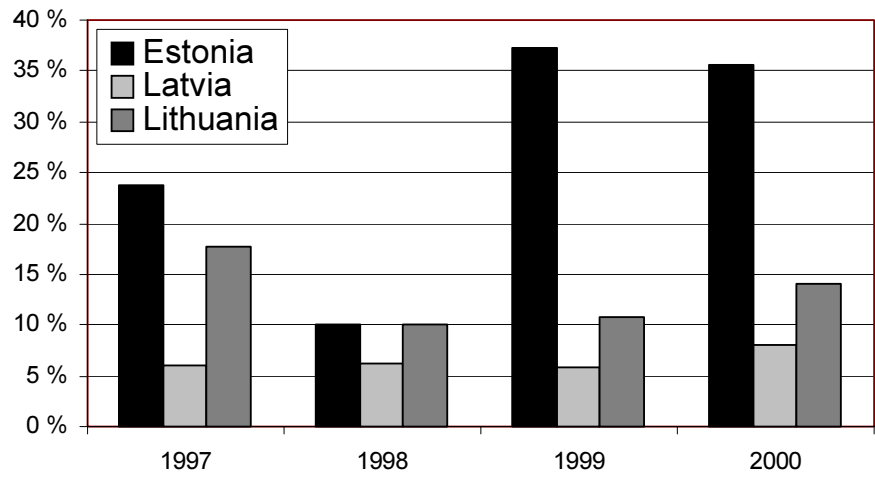
The picture is very similar in Latvia. The Riga stock exchange was established in March 1995, and it also experienced a boom in 1996-97. After a drop in 1998, the Riga index has also stagnated at a low level. At just over 5 per cent of GDP, the Riga market capitalisation is even lower than in Vilnius, and trading value has been similarly low. In 2000, the Riga index rose by 60 per cent. The market capitalisation of (almost exclusively government) bills is lower than that of equities. Still, in Riga as well as in Vilnius most trade is in treasury bills, which are primarily owned by Latvian banks and the central banks. In end-2000 foreigners owned just 3 per cent of treasury bills, up from 0.1 per cent a year earlier.

Graph 8. The Estonian TALSE Stock Exchange Index 1996-2001

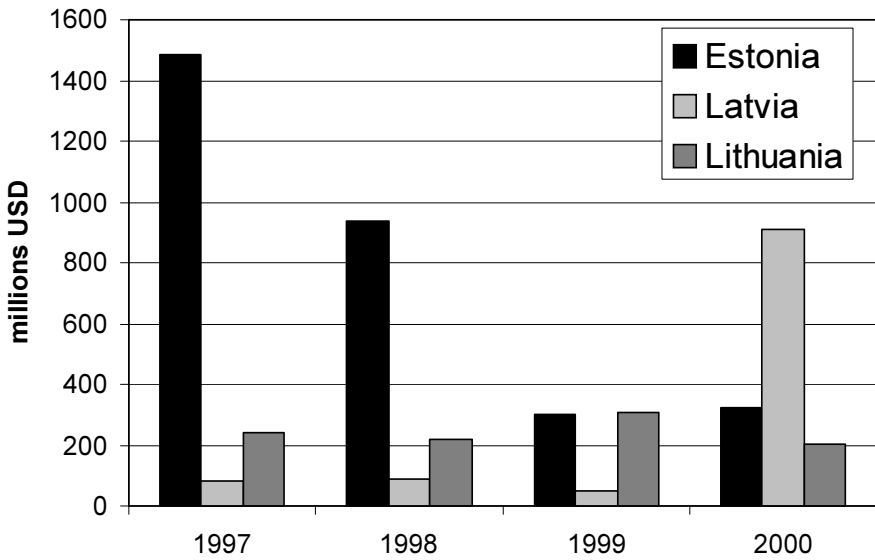


The Tallinn stock exchange was only established in May 1996, though there had been active trading in equity earlier. The stock exchange went through a boom in 1997, followed by a bust in end-1997. As elsewhere in the Baltics, the Tallinn index has stagnated since 1998. Market capitalisation is at 35 per cent of GDP however much higher than in Riga or Vilnius, but the trading value has recently dropped to around 5 per cent of GDP. The explanation is simple: as Estonian banks have been sold to foreigners, the availability of assets has declined. Bank shares dominate all three Baltic equity markets. As the Estonian central government's deficits have been almost non-existent, no treasury bills are available. The Bank of Estonia issued until 2000 modest amounts of 28-day bills for liquidity management purposes, but their auctions attracted only little interest. In the end of 2000, foreigners owned 76 per cent of the market capitalisation of listed companies. While Estonian banking supervision is nowadays regarded strong, supervision of equities markets is weak and lacks credibility (IMF, 2000).

Graph 9. Market capitalisation, per cent of GDP



Graph 10. Trading value, per cent of GDP



Estonia has become well-known for its Treuhandanstalt –type privatisation where international competitive tenders dominated. One would therefore expect that most industries have been privatised to foreigners and that privatisation and foreign direct investment have been closely related. Actually the picture is somewhat different. Between 1993-1998, when most privatisation took place and some 483 enterprises were sold, only 16.9 per cent of all FDI was directly privatisation induced. The figure is only high for 1996-1997. During these years, all privatisation revenue amounted to approximately USD 400 million. At the same time, total FDI was USD 1566.3 million, almost four times higher. Enterprises were privatised to foreigners at low prices; but greater investment followed afterwards.

Table 16. The contribution of privatisation to FDI in Estonia, 1993-1998, in per cent

	1993	1994	1995	1996	1997	1998	Total
Tender, open bids and public sales of shares	4.2	3.9	3.1	11.5	10.1	2.7	5.3
Investment commitments	4.1	4.7	8.4	18.7	40.1	1.7	11.7
Together	8.3	8.6	11.5	30.2	50.2	4.3	16.9
Memorandum item:							
FDI into Estonia (MUSD)	162.2	214.6	201.5	150.5	266.7	570.8	1566.3

Source: Berghäll, 2000.

Latvia privatised in 1991-1993 basically to residents, as the main method was long-term lease with an option to purchase. Later privatisation has been based either on public offerings where companies are sold mainly for privatisation vouchers or on international tenders. Already in 1998, foreign-owned companies accounted for 39 per cent of total sales and 53 per cent of exports. For the period 1994-1998, when privatisation was most active, foreign investors purchased some USD 150 million in privatised enterprises and properties. They also took over an additional USD 250 million in liabilities. The total of these sums adds up to about one-fourth of total FDI into Latvia during these years.

## 2.3 The Relation Between Capital Flows and Structural Reform

Obviously, the figures cited above on the relation between privatisation and foreign direct investment underestimate the link. Though most FDI has never taken place directly into an enterprise at the moment it is being privatised, privatisation does create an important precondition for FDI. The majority of FDI still comes to Estonia as share capital (Table 17), but increasingly FDI consists of reinvested income. In Estonia, its share was 29.1 per cent in 2000. In Latvia, the share rose from zero in 1995 to about 25 per cent in 1999.

Table 17. Structure of foreign direct investments into Estonia, 1998-2000, per cent

	1998	1999	2000
Share capital	70.1	57.4	54.4
Inflow	76.1	81.1	70.3
Outflow	-6.0	-23.7	-15.9
Reinvested income	4.8	16.2	29.1
Claims	-34.4	-41.0	-49.7
Liabilities	40.2	51.6	78.7
Loan capital (net)	17.3	26.4	18.3
Trade credit	-0.4	-0.4	1.8
Short-term loans	6.1	1.9	11.5
Long-term loans	11.7	24.8	5.0
Other capital	7.7	0.0	-1.7

Source: Bank of Estonia

It was already pointed out above that FDI has contributed greatly to external viability in Latvia and even more so in Estonia. Most current account deficit has been financed by FDI. In the short run FDI may increase current account deficit by increasing the demand for imported capital goods, but over a longer time increased export potential should compensate for that. Only in a few cases is FDI based on access to the small Baltic markets, and even then it is typically import substituting. Generally in transition economies, foreign-

owned companies are more export oriented than domestically owned companies. Given the small size of the domestic market, this is even more so in the Baltics. The share of foreign owned companies in exports is higher – and increasingly so – than in total sales.

For a small country, this may also pose risks. A single company – a Finnish-owned electronics subcontractor – has recently accounted for a major share, according to some information for as much as 28.5 per cent (Helsingin Sanomat 19 August 2001) of total Estonian exports. The downturn of their main customers – the Nordic mobile phone majors – lead to freezing of further expansion plans and loss of jobs.

Over time, the sectoral pattern of FDI has changed. In Latvia, for instance, the modest FDI of 1992-1993 took place in agriculture, manufacturing (primarily food processing and leather), construction, auxiliary transport activities, retail trade, financial institutions and some business services. Agriculture and related industries, in particular, are declining industries in Latvia.

In the mid-1990's major investments were made in port facilities and telecommunications, largely based on privatisation. As the privatisation process accelerated, investments in manufacturing increased. Until 1997 manufacturing was the major recipient of FDI. There was diversification from earlier investment into food and wood processing to include textile and garments, chemicals, base metals, metal products and machinery. Since 1998, major investment has been made in the financial sector, the trade network, real estate and communications. The change over the 1990's is indirect evidence that FDI has facilitated structural change in the Latvian economy by helping to reallocate resources to their most efficient use.

No thorough study is available about the possible productivity differentials between domestically and foreign owned companies in the Baltics. The authorities and others do often cite figures purportedly showing, for instance, that in Latvia in 1998, companies with foreign ownership accounted for 24 per cent of total employment, but almost 40 per cent of total sales. This should hold across almost all branches. Further, the productivity difference is reportedly particularly dramatic in transport and communication, where the largest FDI has taken place. The technicalities of such calculations are however unreported.

Maintaining high FDI levels after (most) privatisation has been completed poses further challenges to policy makers. In the Baltic cases, convergence to EU standards and institutions is seen as a major boosting factor.



According to surveys (Ziacik, 2000) the main remaining problems relate to bureaucracy, corruption and lack of sufficiently qualified labour power. According to Transparency International (<http://www.transparency.org/documents/cpi/2001/cpi2001.html>), Estonia is the transition country with least perceived corruption. Lithuania is also well placed, while Latvia keeps somewhat sad company with Slovakia and Romania. At least so far FDI flows into the Baltic countries has continued despite the end of privatisation.

## 2.4 Macroeconomic Consequences of the Capital Flows

In the early-to-mid 1990's, the prevailing view on the choice of the exchange rate regime tended to favour intermediate regimes. There was a need to satisfy several objectives: flexibility versus commitment, inflation stabilisation versus competitiveness, and insulation from monetary shocks versus insulation from real shocks. This pointed to compromise between hard pegs and pure floats (see, for instance, Aghevli et al, 1991). Also, a gradual opening of the economy was widely defended. It was argued that introducing external convertibility of the domestic currency only made sense if preceded or accompanied by other major changes. Those often invoked included trade and capital movement liberalisation, an appropriate exchange rate, sound macroeconomic policies, and incentives for economic agents to respond to market prices, which should be free of major distortions (Greene and Isard, 1991; Portes, 1991). In fact, in this view convertibility only made sense after privatisation and the introduction of hard budget constraints. Nobody believed that such change could be introduced overnight.

Though the picture is slightly different for Lithuania, both Latvia and Estonia chose a non-orthodox path of very fast external liberalisation. They, in particular Estonia since June 1992 and Lithuania since April 1994, also chose the extreme solution of a currency board. In general, the popularity of intermediate solutions declined in the 1990's (Fischer 2001), in particular perhaps after the Asian and Russian crises of 1997-1998. It was increasingly argued that intermediate solutions were hard to sustain and more crisis-prone than either extreme. Among them, free float became the solution to prefer for most countries, while currency unions or currency boards ("very hard pegs") were to be reserved for unusual circumstances. Zettelmeyer (2001) generalises over recent literature by saying that intermediate solutions are unlikely to disappear and remain for developing countries without large exposure to

international capital flows, and as temporary regimes. As permanent solutions for emerging markets, the choice now preferred is between floats and very hard pegs. Floats offer some monetary autonomy and perhaps reduced real volatility, while very hard pegs promise credibility, commitment, and integration.

In Central and Eastern Europe, several countries have recently shifted towards more flexible exchange rate regimes. During early stabilisation, fixed or pegged rate solutions had generally been used as an external anchor of inflation expectations. As stabilisation became of less immediate need, while large capital movements or inconsistent macroeconomic policies made the maintenance of fixed rate regimes difficult or impossible in a number of countries. In a context of capital movements, floating could be used for further disinflation. Among the accession countries, Bulgaria, which opted for a currency board in July 1997, is the only country moving toward a fixed rate regime.

Having a currency board arrangement does not make speculative attacks impossible. Official reserves cover a monetary aggregate much narrower than M2. Speculation is possible and there have been a few instances of it. Though not unlimited, reserves have been large enough and the small size of the countries involved is a blessing: a speculator has problems in finding market counterparts with sufficient limits for Baltic currencies.

But have the Baltics been running true currency boards? As pointed out above the correlation between foreign exchange reserves and reserve money has been very high in Estonia, but not in Latvia and Lithuania. The latter two correlations are almost identical at around 0.40. However, this fact is not simple to evaluate as any revaluation of reserves because of exchange rate movements may induce nominal changes even when the reserves are unchanged in foreign currencies. One should therefore never expect correlations of exactly 1.0.

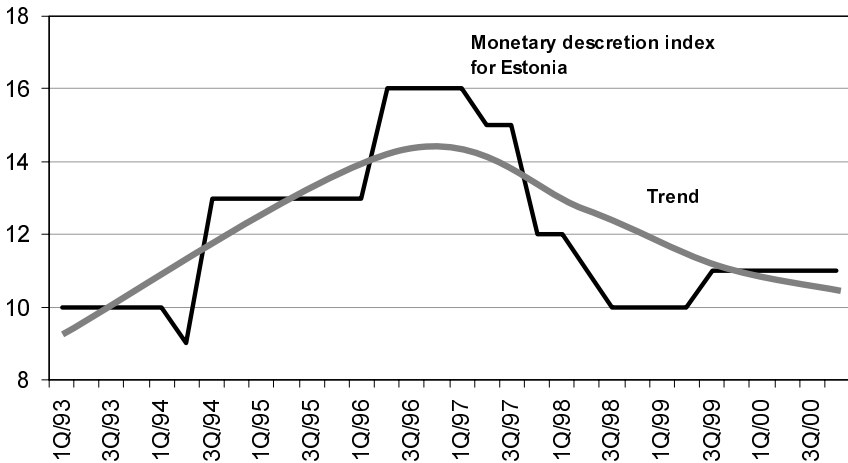
The question can be approached from a different angle, looking at causality and co-integration. Calculations show that there is a Granger causality between balance of payments and interest rates in all the three countries on a monthly, but not on a quarterly basis. Perhaps more interestingly, and concentrating on the border case of Latvia, also in Latvia currency reserves and the monetary base seem to be co-integrated. Therefore one could suggest that the Latvian monetary authorities have behaved at least to some extent as a currency board. Existence of a cointegrating relationship between the cur-

rency reserves and broader monetary aggregates, on the other hand, is not confirmed. This is also the Estonian case.

The Estonian currency board arrangement differs from an orthodox model in at least three aspects. The existence of excess reserves provides for lender of last resort functions, which have also been actively used. The issuance of certificates of deposits (from 1993 to 2000), justified on development of markets grounds, may also be seen as a departure of orthodox principles. Finally, the Bank of Estonia has made active use of reserve requirements, which have been changed 13 times since June 1992. This comes close to a discretionary monetary policy instrument. On the other hand, unlike Bulgaria and Lithuania, the government of Estonia does not keep its money with the central bank. In these two cases, the reserves of the state are included in central bank liabilities and their volatility affects money supply (Nenovsky et al, 2001). Nenovsky et al (2001) fail to find an automatic mechanism for money supply in Lithuania and Bulgaria, defined as the existence of a positive cointegration relation between the balance of payments and the money supply (or reserve money) without discretionary variables in the model. Therefore, one can deny the existence of a currency board in these countries, as Äimä has done for Lithuania (Äimä, 1998). Even for Estonia, Nenovsky et al (2001) find the automatic mechanism only in a weak form, between balance of payments and reserve money, not between balance of payments and broad money. However, this is not very surprising result. Relationship between reserve money and broader monetary aggregates has been changing in transition countries as their financial systems have become more developed and velocity of money decreased. In a currency board the automatic adjustment mechanism links together currency reserves and monetary base, and therefore the link between currency reserves and M2 (say) may not be constant.

Nenovsky et al (2001) also construct a monetary discretion index for Estonia. It combines changes in the level and method of minimum required reserves of commercial banks with some one-off measures like liberalisation of the capital account, elimination of the exchange rate spread (in July 1996) and a change in capital adequacy requirements (October 1997 – see Graph 11). In the chart, an increase of the indicator denotes “monetary expansion” and increased liquidity. Visual inspection tells that the asset price and growth boom of 1997 was preceded by high liquidity, which was then curtailed to control the bubble. Restrictive monetary policy continued in spite of the recession created by the Russian crisis in 1998. Thus measured, Estonian monetary policy has actually been pro-cyclical.

Graph 11. Monetary discretion index for Estonia



Source: Nenovsky et al, 2001.

Nenovsky et al (2001) do not describe the derivation of the monetary discretion index in detail. Though the Estonian monetary authorities may have contributed to the build-up of the mini-crisis of Autumn 1997 (to be discussed below), assessing the quantitative importance of various monetary policy measures remains impossible.

## 2.5 The impact of the Russian crisis in 1998

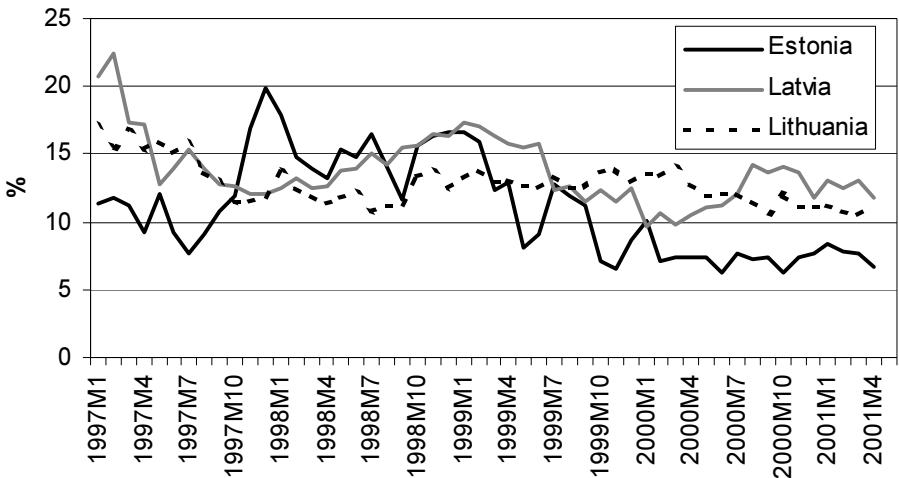
Russia was hit in August 1998 by a crisis that combined all the three parts of a classical financial crisis: debt crisis, banking crisis and an exchange rate crisis. By some, this was seen as the final proof of the failure of economic transition in Russia. In fact, though explanations still abound, the Russian crisis is best seen as a typical first generation currency crisis, created by unsustainable public sector deficit financed largely by short-term bonds. Excessive risk taking and deficient supervision of the banking industry also contributed, and the somewhat earlier Asian crisis had a negative impact on investor confidence. Fundamentally, however, the crisis was home made in Russia (Sutela 2000).

The Russian crisis had an immediate impact on the Baltic countries via foreign trade, as Russia has historically been an important trading partner for these countries. The Russian share in exports before the crisis was 24 per cent for Lithuania, 21 per cent for Latvia and 15 per cent for Estonia. It was also a major source of imports, and handling the transit of Russian trade goods was a major business for all the Baltics. The exports of food and beverages and processing industries were hardest hit (Korhonen and Taro, 2000). All the three countries slid into a recession, which however proved a short one. Estonia resumed growth in early 1999, Latvia in mid-1999 and Lithuania in end-1999.

The impact via the current account, direct investment, the banking sector and securities markets was however much less than could have been expected. The Baltics had largely escaped from the shadow of Russia. Estonia's liberal economic policies and prospect of relatively fast EU membership had made it a favoured destination of foreign direct investment (Ziacik 2000). The Russian crisis had no impact on either FDI or the banking sector, which was receiving major investment from Sweden. Only 0.1 per cent of Estonian banks' assets were in Russia. There was a short shock in the Tallinn stock exchange, and the one-month Talibor interest rate almost doubled from about 10 in August to over 18 in end-1998. These were short-term impacts, which disappeared in 1999.

In Latvia, the banking sector was much worse hit, as Latvian banks had some 8 per cent of their assets invested in Russia, about 40 per cent of that in short-term government bonds, GKO's. Three banks were closed or suspended by the central bank, and many others suffered heavy losses. The stock exchange was heavily hit. The Dow Jones Riga Stock Exchange index (DJRSE), which had been around 590 in September 1997, had dropped to only 189 by the beginning of the Russian crisis, and further dived to 98 by end-1998. During 1999, the decline continued by 11 per cent. There was some pressure against the lat both in late 1998 and again in the second half of 1999, but the turbulence was short-lived. It was ended by the government's announcement of expenditure cuts in 1999. Like in Tallinn, the one-month Rigibor doubled after the crisis, from 5-6 to 11 per cent.

Graph 12. Annualised monthly lending rates in the Baltics, 1997-2001, per cent



The Russian crisis had no serious impact upon Lithuanian banks. Total banking sector exposure to Russia in the beginning of September 1998 was just 1.4 per cent of total assets. However, there was a major indirect exposure through Lithuanian export companies, as Lithuania was more dependent on Russian trade than its northern neighbours. This led to quite large losses for some banks. As in the other Baltic countries, money market rates about doubled.

In retrospect one can argue that the Russian crisis was a blessing in disguise for the Baltics. The previous year had seen the first boom and bust pattern develop in Baltic financial markets. Borrowing by banks from abroad surged and credit grew fast. The door to a path of very high growth, instability and destabilising short-term capital flows was open. The Asian crisis of late 1997 gave an important warning signal of the dangers involved. The sharp decline in exports into the former Soviet Union further forced a scaling down of growth expectations. The ensuing bank crisis left selling financial institutions to foreigners as the remaining logical alternative. The Baltic countries were firmly locked into the development pattern of lacking markets again.

## 3 Approaches to Managing Capital Flows

### 3.1 Strategies Followed

A country's can use of the five "defence lines" in managing inflows. They are (a) administrative regulation reducing the gross inflow of foreign capital; (b) measures to weaken net capital inflows (including import liberalisation, increase in the current account deficit, and liberalisation of capital outflows); (c) exchange rate and associated sterilisation policies; (d) macroeconomic adjustment driven by fiscal consolidation; and (e) changes in the regulation and supervision of the financial sector.

The first possibility, using administrative regulation, has not been relevant in the Baltic countries. From very early on, these countries have followed an exceptionally radical course of current and capital account liberalisation. The very few restrictions in place until 1994 were basically thought out as a defence of politically feared Russian inflow, not as an economic capital flow management tool. After 1994, the capital account has been fully liberalised. Though some marginal restrictions remain, primarily concerning foreign acquisition of real estate, they are intended for domestic – and local – political needs, not for managing capital flows.

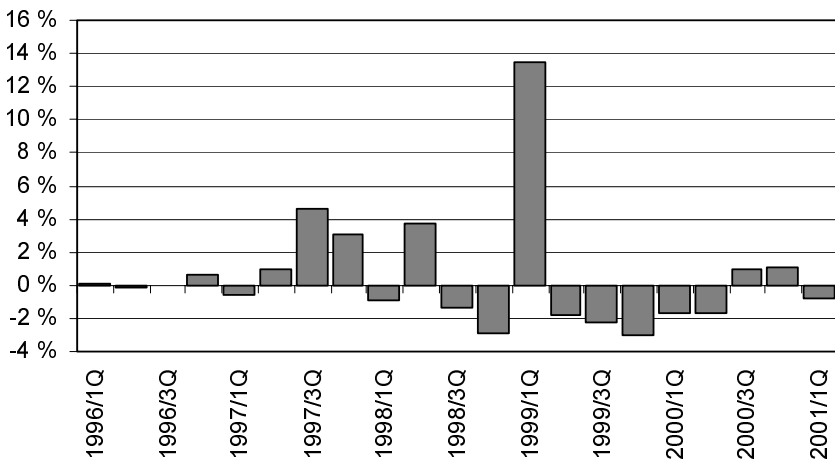
The second possibility, measures to weaken net capital inflows, may be of some relevance. It is conceivable that the Baltics were conscious of the dangers of asymmetric, inflows first liberalisation, and therefore committed themselves to full symmetric liberalisation. Inflows first – liberalisation asymmetry was a major factor in the build-up of the Finnish crisis during the second half of the 1980's. Rather than learning from a neighbouring country, it is more probable, however, that the Baltic states were simply consistent in their liberalisation push.

Exchange rate and associated sterilisation policies have been in the Baltic countries have been conspicuous by their absence, given the currency board arrangements in force. The essence of a currency board is the absence of room for exchange or interest rate policies.

Macroeconomic adjustment driven by fiscal consolidation has been constrained by the goal of balanced budgets in Estonia. It has been impossible to reach surpluses. The exception was 1997, when the boom helped to create a 2.2 per cent general government budget surplus. On a quarterly basis, state budget surplus prevailed from 1992/Q2 to 1998/Q2 (Graph 13). After that,

as it should on counter-cyclical considerations, the budget surged into deficit, which remained relatively high until 1999/Q4 (1999/Q1 being a quarter of exceptional privatisation revenue). Counter-cyclism is evident, but still no evidence of conscious Keynesian decision-making. In addition, the country early decided to form a Stabilisation Fund meant to be used in case of economic adversity and to finance structural reform. At the time the topic of much interest, the Fund's size at end-2000 was a relatively modest 1075 million EEK, and it remains unclear when and for what purposes the Estonian parliament might decide to use the fund.

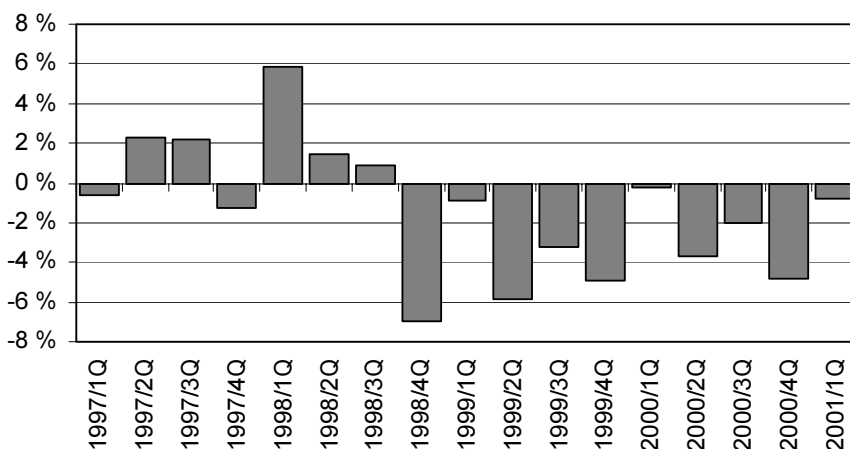
Graph 13. Quarterly budget balance in Estonia



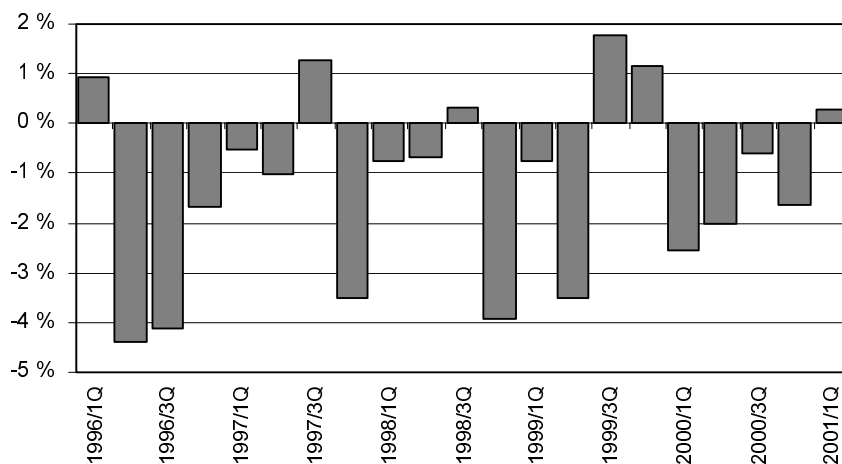
The same argument about counter-cyclical budget can clearly be made concerning Latvia, but not about Lithuania. In the latter case, the only visible regularity is the generally positive balance on third quarters, possibly due to the Mazeikiai Oil Refinery, which also moves Lithuanian quarterly production statistics.



Graph 14. Quarterly budget balance in Latvia



Graph 15. Quarterly budget balance in Lithuania



One of the possible drawbacks of a currency board system is that the central bank can only act as a lender of last resort if it has accumulated excess reserves, i.e. has not translated all increase in reserves into money supply at

the given fixed exchange rate. This has been the case of both Estonia and Latvia, where reserve accumulation has been a major goal. The use of such excess reserves has however been very sparing, though both countries have been through major banking crises. In major banking crises around the world it is usually the fiscal authority which has to ultimately bear the costs of bank restructuring.

Autumn 1997 gives the most prominent example of the functioning of the Estonian system in a crisis. As repeatedly pointed out above, 1997 was an exceptional demand driven boom year in Estonia. GDP grew by 10.4 per cent. This was the highest growth in Europe that year. The current account deficit was record high at 12.2 per cent, while current government recorded an exceptional surplus of 2.2 per cent of GDP. Inflation, though on a downward trend, was still 12.5 per cent. Bank credit increased from January to October by 70 per cent and the production of financial services by 30 per cent. Industrial output surged in second quarter by 17 per cent. Financial flows to Estonia were at an all-time high (Graph 2). Meanwhile, turbulence increased in international markets starting with turmoil in Asia. Long-term flows had financed about 70 per cent of the Estonian deficit, and creditors started wondering whether much of the flow had been consumed, not invested.

The Bank of Estonia had taken the first measures to cool down credit growth already in Spring 1997. The capital adequacy ratio of banks was increased, and the reserve requirement base was widened in steps. These and some other measures taken (see [www.ee/epbe/en/release/index\\_1997.html](http://www.ee/epbe/en/release/index_1997.html)) however proved insufficient.

In the end the boom met with liquidity constraints. Interest rates started to increase in October, while the stock market index, which had risen by some 400 per cent since June 1996, declined, to collapse by 19.4 per cent on 10 November. Banks started calling back credit issued with securities as collateral. In late October the central bank took decisions to constrain credit expansion, primarily by increasing liquidity requirements, as visible in Graph 11. On 7 November the government and the central bank announced an economic policy programme for 1997-1998. Citing generally sound fundamentals but pointing out the current account deficit and fast credit expansion as problems, the authorities argued that interest rate growth and stock exchange depression were an adequate correction, not a crisis of confidence. They assured that the existing principle of policies, including the currency

board would be maintained while the stability of the financial sector would be strengthened by, for instance, further increasing capital adequacy requirements, which had already been raised in October. The stabilisation fund would be increased and the general government would maintain a surplus in 1998 as well. (This failed to materialise, as 1998 was a year of banking and Russian crisis.)

On 7 November Estonia also requested and soon signed a stand-by arrangement with the IMF. The decline in stock prices stopped by the end of the year (Graph 8), and lending rates (Graph 12) declined, though remained higher than before the Autumn. The combination of reasserting liberal principles, financial restraint, monetary stringency and continued structural reform had turned the mini-crisis back. No restrictions had been imposed on capital flows, and the central bank had fully used the policy possibilities that the currency board arrangement provided for. There had reportedly been some short-selling of the kroon in early November, and the press spread devaluation expectations, but the actual extent of speculation remains unclear. The speculative pressure, anyway, was very short-lived.

### 3.2 Sterilisation of Capital Flows

The argument presented above concludes that even though the correlation between the balance of payments and reserve money is less than one in Estonia – and much more so in Latvia and Lithuania – there is no evidence that the authorities have pursued policies of sterilisation in any of these countries. This would be against the declared and adopted principles of a currency board arrangement. One cannot expect perfect correlations between currency reserves in emerging systems, where the monetary transmission system is still in the process of development. But also an inspection of the relation between currency reserves and reserve money shows no evidence of conscious policies of sterilisation.

To be truly conclusive, this conclusion should be examined against evidence provided by sufficiently high-density data. Such data is however not freely available and anyway the task of analysing it would be beyond the possibilities of this paper.

## 4 Conclusions

Being a small open economy usually exposes a country to various instabilities, including speculative short-term capital flows. Therefore, such countries are now advised to be careful in liberalisation. The trend has recently been towards more flexibility in exchange rate regimes. In this light, the three Baltic countries are a paradox. They are extremely small and extremely open, but also extremely liberalised and continue to maintain extremely fixed exchange rate regimes. Though a few speculative attacks have taken place – notably in Estonia in Autumn 1997 – there has been no intention to abandon the currency board arrangements in place. The exception has been Lithuania, where the arrangement was originally introduced over the opposition of the central bank and many politicians. But this exception actually serves to strengthen the paradox: Lithuania has been, largely for fear of inviting speculation, unable to abandon the currency board, though this intention was publicly announced years ago.

This paper has argued that the Baltic countries have actually been protected by their very smallness. There is simply very little place for speculation. The vehicles needed are almost absent: domestic and foreign debt is small and markets thin and illiquid. The banking systems have been sold to credible foreign owners, as has much of industry. Stability has been supported by generally responsible fiscal policy. Labour markets – not discussed in this paper – are flexible to the degree that while Finland is a country with centralised wage settlements, no Finnish-owned company in Estonia has even an enterprise-wide collective agreement.

Obviously, this is not a model that most other countries could or even wished to follow. But the probability is that the three Baltic countries will be able to maintain their very specific model until the not too distant day when the Economic and Monetary Union will irreversibly abolish any residual worries of external instability there might be.

Quite as obviously, the Baltic development path of lacking markets was only to a degree designed. Not to accept any of the Soviet debt was a political decision, but the running of only slightly deficit budgets was a conscious policy decision, though probably made more on general grounds of prudence than out of fear of speculation in debt markets. The banking crises, which made domestic banks suspects both as providers of credit and in particular as recipients of deposits, were surely neither planned nor hoped for. The same

is true of hibernating equity markets.

Now that banks have been sold to solid foreign owners they will become more attractive. But at the same time interest rates have come down, and the remaining interest difference against the euro region is hardly sufficient to attract major deposits to the Baltic banks.

But there was and still is a wider background. The Baltic decision-makers never intended to develop fully-fledged national economies with a complete set of domestic markets. They were, from the very beginning, intent on escaping from the shadow of the USSR by integrating fully with North-Western Europe. They chose to try and become a region inside a much larger entity, with a complete set of markets. So far, the decision has served them well. The experience of the Eastern Länder of Germany however reminds one that the long-term success of such a strategy is by no means guaranteed.

The discussion above has pointed out several of the risks involved. Maintaining visible trade deficits of 15-20 per cent of GDP is only feasible as long as rich transit and tourism revenues are forthcoming. Maintaining current account deficits of six per cent of GDP is only sustainable as long as foreign direct investment flows continue. One cost of underdeveloped markets has been low and declining domestic saving ratio. The bottom line must be that the region of the Baltics within North-Western Europe can only avoid becoming another Mezzogiorno as long as it remains an interesting investment target.

No decline in inward investment flows is visible, yet at least. But the risks are there. Some are created by the Baltic tales of two societies. Others arise from the quite small reserves of qualified labour power available. Many follow from the very modest capacity of the domestic education, training and research and development systems. And there is the ever-continuing appearance of new competitors for investment. Several foreign companies have made good in the Baltics. Very few domestic ones – with the exception of those involved in transit – have done that.

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## Notes

<sup>1</sup> However, revaluation of reserves because of exchange rate movements may induce nominal changes even when the reserves are unchanged in foreign currencies. For example, small part of Estonian reserves has been denominated in the US dollar. This effect would be stronger for the other two countries.

<sup>2</sup> Put simply, the interpretation of the Balassa-Samuelson effect relevant here says that accession countries will tend to have higher inflation than EU members, as productivity growth will be faster in the catching-up, competitively traded-goods sector than in the non-traded goods sector, while wage increases tend (for some reason) to be similar across the economy. A Nordic reader will recognise the once famous Nordic Inflation Model as Balassa-Samuelson plus centralised wage bargaining.

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